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ABSTRACT

This overview examines the major research studies on Catholic schools published between 1965 and 1991 along with a synthesis of the research regarding the demography, outcomes, and environment of Catholic schools, and of the teachers, parents, and students associated with Catholic schools. The research showed that student from Catholic schools scored higher on virtually all outcome measures than did students from public schools, even when relevant demographic characteristics of the students were controlled. This document is organized into nine chapters. Chapter 1 is an introduction. Chapter 2 is a critical review of the major studies on Catholic schools. Chapter 3 describes the demography of Catholic schools. Chapter 4 presents a review of the research concerning three types of Catholic school outcomes: academics, religious, and values. Chapter 5 looks at the research on the environment of Catholic schools in five themes: the school as community; differences in the cultures of Catholic schools and public schools; the academic climate of Catholic schools; discipline and order; and the development of the faith community. Chapter 6 examines the research on Catholic school teachers. Chapter 7 describes the research on parental choice of Catholic schools. Chapter 8 presents the research on two themes concerning students: minority students in Catholic schools, and the comparison of single-sex with co-educational Catholic high schools. Finally, Chapter 9 summarizes the important findings from the research on Catholic schools; addresses the question of the relative effectiveness of Catholic and public schools; and identifies some directions for future research, including attention to methodology, the establishment of research priorities, and the continuing examination of important topics relating to Catholic schools. A lengthy list of references is included. (DB)

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CATHOLIC SCHOOLS MAKE A DIFFERENCE

TWENTY-FIVE YEARS OF RESEARCH

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JOHN J. CONVEY



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PREFACE

This book is a study of the studies on Catholic schools. In addition to providing an overview and synthesis of the research concerning Catholic schools that was published between 1965 and 1991, it identifies important indicators of the schools' effectiveness and charts some direction for future studies.

The book is intended for several audiences: national and diocesan leaders of Catholic schools, educational researchers, pastors, Catholic school principals and teachers, school board members and, not the least, the consumers of Catholic education, the families who send their children to Catholic schools, as well as those who are considering sending their children to them. The findings of this research concerning the environment, outcomes, and personnel of Catholic schools will help each of these audiences to understand better Catholic schools and their effects.

The contribution and encouragement of a number of people helped to make this book a reality. I extend my deep appreciation to all who assisted along the way.

The Research Board of the Chief Administrators of Catholic Education (CACE) provided the funding for the book as a way to realize its long-standing intention to make the results of the research on Catholic schools more available to the larger Catholic community.

Dr. J. Stephen O'Brien and Sister Regina Haney, OSF, attended to the administrative details involved in the book's production and the reviews of preliminary drafts. Both were ably assisted by Ms. Jane Golden.

My colleagues at The Catholic University of America were very supportive, especially Rev. Berard Marthaler, OFM, of the Department of Religion and Religious Education, who was instrumental in my writing a previous review of literature, which led to the invitation from the CACE Research Board to submit a proposal for this book, and Sister Maria Ciriello, OP, of the Department of Education, who encouraged me to embark upon this project.

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Ms. Eileen Torpey provided expert editorial assistance that greatly improved the book's readability, as did the book design by Beatriz Ruiz.

My family was particularly supportive during the two years it took to write this book. My wife Shelly read the preliminary drafts of each chapter, found most of my errors, and offered helpful suggestions. My children, Chris and Katie, patiently allowed me to "keep working at the computer." They are experiencing firsthand that Catholic schools do make a difference.

*John J. Convey
Department of Education
The Catholic University of America
June 1992*

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The Department of Chief Administrators of Catholic Education (CACE) of the National Catholic Educational Association has always been interested in Catholic schools research. The members of CACE who belong to the CACE Research Center have voluntarily contributed money each year to fund and disseminate research in the area of total Catholic education.

This work by distinguished researcher John Convey forms part of the dissemination mission of the Board. Dr. Convey was given the global task of synthesizing Catholic school research for the professional researcher, as well as analyzing, interpreting and summarizing it for superintendents, principals, school board members, teachers and parents. This work provides us with an opportunity to celebrate and with a challenge to move to new heights. What the research for the next twenty-five years will say about our Catholic schools depends upon how we build on what is presented in this resource.

Many people contributed to the book's publication. We are most appreciative of the leadership shown by the CACE Research Board which called for and financed this valuable resource. I would like to thank the members of the current CACE Research Center Board for their leadership: Br. John McGovern, CSC; Sister Ann Dominic Roach, OP; Mr. Eugene Piccolo; Sister Glenn Anne McPhee, OP; Mr. Howard Jenkins; Dr. Rosemarie Cibik; Dr. Carolyn Jurkowitz; Rev. James Heft, SM; Dr. James J. Cusimano and Sister Anne Leonard, CND. Many current and former members of the Board also served as reviewers for the first draft of the manuscript, including Br. William Carriere, FSC; Mrs. Patricia Tierney; Sister Kathryn Ann Connelly, SC; Br. Peter Pontolillo, SM; Sister Ann M. Moore, CND, and Sister Jeanette Zielinski, OSF.

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Twenty-five years of research in Catholic schools presents a very favorable picture of the work that the schools have done for all their students and especially for those who have been socially or economically deprived. My hope and my conviction is that Catholic schools will continue to serve children and youth with the excellence they have shown in the past.

Regina Haney, OSF
Acting Executive Director
Department of Chief Administrators of Catholic Education

June 1992

INTRODUCTION

A Catholic school has a special mission that sets it apart from public schools and most other private schools. In addition to supporting a complete academic curriculum, a Catholic school is a faith community that integrates religious instruction, value formation, and faith development into the academic education of the students. Indeed, the mission of the Catholic school is an extension of the overall evangelization mission of the Catholic Church. In its document, *The Religious Dimension of Education in a Catholic School*, the Congregation for Catholic Education states:

"The mission of the Church is to evangelize for the interior transformation and the renewal of humanity. The special character of the Catholic school, and the underlying reason for its existence, the reason why Catholic parents should prefer it, is precisely the quality of the religious instruction integrated into the overall education of the students" (Sacred Congregation for Catholic Education, 1988, No. 66).

How successful have Catholic schools been in achieving their individual missions? What emphasis do Catholic schools place upon academics and how does the achievement of students from Catholic schools compare with that of students from public schools? What evidence exists concerning the effectiveness of Catholic schools in promoting the religious formation and value development of their students? To what extent are Catholic schools able to create vital faith communities? What attracts teachers to work in Catholic schools? How do Catholic school teachers compare with public school teachers in terms of commitment, collegiality, sense of efficacy, and satisfaction? Why do parents send their children to Catholic schools? The research during the past 25 years can help to provide answers to these and other important questions concerning Catholic schools.

Research on Catholic schools blossomed between 1965 and 1990. From largely isolated, mainly historical, studies (often doctoral dissertations and master's theses at Catholic universities) prior to 1965, a well-organized, theoretically grounded, and methodologically sophisticated body of research emerged. For the most part, the major studies between 1965 and 1980 examined the effects of Catholic schools on the religious development and attitudes of their students. While of great interest to those within the Catholic community, these studies received little national attention. After 1980, however, the research concerning Catholic schools enjoyed national prominence and had an important impact on educational policy, both in the Catholic and public sectors.

The national research studies conducted during the 1980's were particularly influential in portraying Catholic schools as models of effective schools. The results of these studies, which have been the subject of serious debates within the educational community, prompted educators to examine what could be learned about Catholic schools that would help public schools become more effective. Educators are most intrigued by the consistent findings that, first, Catholic schools are particularly effective for minority children, and, second, Catholic schools generally are able

to create a climate characterized by discipline and order, a strong sense of community, high academic standards, a highly committed and collegial faculty, and high levels of parental interest and participation, each of which the research has shown to be associated with effective schools.

Purpose and Scope

This book presents the research on Catholic schools that was published during the period from 1965 to 1991. This review is more comprehensive than other reviews on Catholic school research. Madaus and Linnan's (1973) and Fay's (1975) reviews mainly concerned the academic and religious outcomes of Catholic schools and included selected studies that were conducted prior to 1971. Convey (1989a) limited his review to the major studies on Catholic schools that were published between 1979 and 1987.

In addition to providing an overview of the major studies published between 1965 and 1991, this book contains a synthesis of the research regarding the demography, outcomes, and environment of Catholic schools, and of the teachers, parents, and students associated with Catholic schools.

BACKGROUND

Two separate, but related, research initiatives that began in the mid-1960's influenced the nature and direction of studies on Catholic schools. One was the comprehensive research agenda developed by the federal government to determine the effectiveness of American schools. The other was the Catholic community's sponsorship of studies in an effort to determine the success of Catholic schools in achieving their special mission, particularly the effects of the schools on religious outcomes and values, and to promote the public purposes of the schools, particularly their benefits for the poor of the inner city.

Federal Research Initiatives

The launch of the unmanned satellite *Sputnik* by the Soviet Union on October 4, 1957, had a profound effect on American education. The fear that the United States was falling behind Russia in scientific technology, or actually was behind, provided an impetus for educational reform in the United States. A concerned American public raised serious questions concerning the quality of the schools.

Until the late 1950's, the federal government had only a limited role in education. In 1958, Congress passed the National Defense Education Act, which provided scholarships and loans to encourage the study of science and mathematics. By 1959, major curriculum projects involving, for the first time, close collaboration between university scholars and elementary and secondary school teachers were launched. Some prominent examples were the Physical Science Study Committee (PSSC Physics), the Biological Sciences Curriculum Study (BSSC Biology), and the School Mathematics Study Group (SMSG). These and similar "new" curricula permeated the nation's schools in the 1960's and "new math" became a common term.

In general, schools were ill-equipped to handle these new curricula. Although the instructional materials developed were of high quality, most teachers simply were not prepared to teach the content adequately. Younger teachers who had just graduated from college often were comfortable with the content because of their recent academic experiences; however, their education courses

had not prepared most of them to teach this content to students. The preparation of veteran teachers also was lacking, with the result that these new curricula frequently were poorly taught and often abandoned.

The public unrest concerning the quality of American schools helped to precipitate the entrance of the federal government as a sponsor of large-scale educational studies, some of which served to focus national attention on Catholic schools. In 1964, Congress commissioned the first major study of the nation's schools, which was conducted by the prominent sociologist, James S. Coleman. Two years later, Coleman and his colleagues (Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld, & York, 1966) issued their famous report on the schools, *Equality of Educational Opportunity*. A controversial and uncomfortable conclusion of this study, known commonly as "The Coleman Report," was that the school has little effect on a child's achievement that is independent of the child's family background and general social context. Many analyses of Coleman's data, published from 1968 to 1974, attacked The Coleman Report on both philosophical and methodological grounds (Sewell, Hauser, & Featherman, 1976). Because of its magnitude, sponsorship, timing, and conclusions, The Coleman Report did much to focus the attention of the educational community on two related questions: (1) What are the characteristics of effective schools? and (2) What factors contribute to the schools' effectiveness? (Madaus, Airasian, & Kellaghan, 1980).

In *Equality of Educational Opportunity*, Coleman and his colleagues did not address any research questions or perform any analyses that singled out Catholic schools. Such was not the case in a subsequent large-scale study sponsored by the federal government. In the late 1970's, the Center for Education Statistics designed a national longitudinal study of secondary schools in the United States. The study, called *High School and Beyond*, was to help form federal and state policy during the 1980's. Fortunately for Catholic schools, Coleman was the principal investigator for one of the major issues of the study: the comparison of public and private schools. Because most of the private schools in the study were Catholic, many of the questions addressed by Coleman and his associates, Thomas Hoffer and Sally Kilgore, compared Catholic schools with public schools and with other private schools. In their first major report from the study, Coleman, Hoffer, and Kilgore (1981) concluded that, in many areas, Catholic schools produced better outcomes than did public schools. As happened with *Equality of Educational Opportunity*, a storm of controversy ensued concerning the findings of this "Second Coleman Report" (Goldberger & Cain, 1982; Murnane, 1981), which served to rivet the attention of researchers and policy makers on the question of the relative effectiveness of Catholic schools.

In addition to the public attention focused on Catholic schools by the results of *High School and Beyond*, two other important federal research initiatives increased the visibility of Catholic schools. The first was the priority given by the Office of Research of the United States Department of Education to studies on issues relating to character, choice, and curriculum. The *character* focus concerned such topics as values, moral education, citizenship, and self-discipline. Catholic schools, with their value-centered curricula, formal programs of religious education, and disciplined environments, often were shown to be effective in producing favorable character outcomes. The *choice* focus emphasized research that explored the reasons why parents selected different types of schools for their children and the results of these parental decisions. Much of this research involved the choice of Catholic schools. The *curriculum* emphasis focused, in part, on the identification of the characteristics of effective schools. The literature on school effectiveness began to identify organizational factors that were regularly found in effective schools. Many of these studies included one or more Catholic schools, which often proved to be among the most effective of the schools studied.

The second initiative was another major longitudinal study, *The National Education Longitudinal Study of 1988* (NELS:88), which provided data on 8th graders and their transition to high school. NELS:88 contained a large sample of Catholic school children and, as in *High School and Beyond*, permitted comparisons of the performance of Catholic schools with public and other private schools. The preliminary reports from the analyses of the NELS:88 data showed an advantage for Catholic schools over public schools, albeit somewhat smaller than the advantage that occurred in *High School and Beyond*. Although the studies published to date have used only the base-year data, NELS:88 provides important longitudinal data about all schools: Catholic, public, and private.

Catholic Research Initiatives

Paralleling the research effort by the federal government, the Catholic educational community launched a series of research initiatives, designed to focus on the unique characteristics of Catholic schools and their effectiveness. Two landmark studies, published in 1966, had substantial impact on the subsequent research concerning Catholic schools. *Catholic Schools in Action* (Neuwien, 1966) and *The Education of Catholic Americans* (Greeley & Rossi, 1966), both pioneering studies on Catholic schools and their effects, ushered in a new age of research on Catholic education.

Catholic Schools in Action, also referred to as the "Notre Dame Study of Catholic Education," was significant for two reasons. First, it represented the first national, comprehensive study of Catholic elementary and secondary schools in the United States. Over 9400 elementary schools and over 2000 secondary schools from all but four dioceses in the country participated in it. Second, an important national foundation, the Carnegie Corporation, provided the major funding for the study, and the National Catholic Educational Association (NCEA), along with the Education Department of the National Catholic Welfare Conference, the predecessor of the United States Catholic Conference (USCC), facilitated the collection of the data. In subsequent years, particularly during the 1980's, NCEA, with considerable financial assistance from the Knights of Columbus and from major national foundations, emerged as the sponsor of other important research on Catholic schools.

Also in 1966, Andrew Greeley and Peter Rossi published their comprehensive study of the effects of a Catholic school education on the religious behaviors and attitudes of American Catholics. Conducted in conjunction with the National Opinion Research Center, and also with funding from the Carnegie Corporation, *The Education of Catholic Americans* was more analytic than *Catholic Schools in Action* and was, arguably, the most ambitious study of Catholic education to that time. Perhaps more importantly, *The Education of Catholic Americans* marked the beginning of Greeley's extraordinary and enduring research effort to examine, in a rigorous and objective manner, the effects of Catholic schools on their graduates and the contribution of Catholic schools to the church in the United States.

Commencing in the late 1970's, a series of research initiatives resulted from the interest of Catholic educational leaders to document the effectiveness of Catholic schools and to promote their public purposes, especially their service to disadvantaged inner-city children. To achieve these ends, NCEA became a major sponsor and designer of a series of empirical studies that resulted in a rich database about Catholic schools. The significant studies that NCEA sponsored concerned the effectiveness of Catholic high schools (Bryk, Holland, Lee, & Carriedo, 1984), their general characteristics (Yeager, Benson, Guerra, & Manno, 1985), their impact on low-income students

(Benson, Yeager, Wood, Guerra, & Manno, 1986), the beliefs and values of Catholic high school teachers (Benson & Guerra, 1985), the views of bishops and priests concerning Catholic schools (O'Brien, 1987), and the comparison of the values of Catholic seniors in Catholic high schools with Catholic seniors in public high schools (Guerra, Donahue, & Benson, 1990). NCEA also sponsored a series of reports that compared the performances of Catholic school students with public school students on tests from the *National Assessment of Educational Progress* (Lee, 1985, 1987; Lee & Stewart, 1989; Marks & Lee, 1989). In addition, the United States Catholic Conference (Vitullo-Martin, 1979) and the Catholic League for Religious and Civil Rights (Cibulka, O'Brien, & Zewe, 1982) each commissioned an important study on inner-city Catholic elementary schools. Finally, a major study by Greeley (1982) that used data from *High School and Beyond* focused additional attention on the effective service that Catholic schools provided to minority and low-income students.

METHODOLOGICAL ISSUES

The studies reviewed in this book vary in type of inquiry, methodology, and use of statistics. A few studies are detailed naturalistic investigations of schools, which employ few or no statistics. Most studies are descriptive and employ simple statistics, such as means, standard deviations, percentages, and correlations. Other studies, including many of those that compare Catholic schools with other types of schools, use more sophisticated statistical analyses.

School effects' studies often use statistical methods to control for the contribution of selected variables. The purpose of control is to reduce the amount of error in the research, which, in turn, facilitates the appropriate interpretation of the relationships among the variables and ultimately of the conclusions of the study.

A common statistical method used by many studies on Catholic schools is multiple regression analysis. In multiple regression, the researcher identifies the variables that are potentially important predictors of some outcome variable. The analysis then establishes a linear combination of the predictor variables, which satisfies a criterion called "least squares" and which results in the highest possible relationship with the outcome variable. The researcher often then will identify the most important predictors of the outcome variable. A particular advantage of multiple regression analysis is that the contribution of each predictor variable in the analysis is controlled for the presence of the others.

The nonexperimental nature of school effects' studies, however, often makes the results of regression analyses particularly difficult to interpret. As is ordinarily the case in studies of school effects, the research designs of many studies on Catholic schools are nonexperimental, since the manipulation of treatment conditions (individual schools or types of schools) and the random assignment of subjects (students, teachers, etc.) to the treatment conditions usually are not possible. Compared with experimental research, nonexperimental research is more complex and produces more ambiguous results. Consequently, the findings from studies that use nonexperimental designs must be interpreted with caution. As Pedhazur (1982) notes:

"Regression equations for nonexperimental designs reflect an average relationship between an outcome variable and a set of independent variables [predictors], and *not necessarily* the process by which the latter produced the former." (p. 222) . . . "Assuming one can arrive at a clear explication of the relations among the variables, it is conceivable that varying one while holding the others constant is neither theoretically meaningful nor practically feasible" (p. 225).

One interpretation of Pedhazur's remarks is that the studies that use regression analysis to compare Catholic and public schools can estimate the differences in achievement between them, but cannot conclude that a child moving from a public school to a Catholic school would enjoy the same advantage or that the same differences would exist between Catholic and public schools if a substantial number of public school children were to transfer to Catholic schools. The establishment of a strong relationship, however, between the type of school attended and student outcomes is commonly used as an indicator of school effectiveness. Again, such a finding, which may be a correct indicator of reality, must be cautiously interpreted because of the limitations of the methodology.

Other methodological issues encountered in some studies on Catholic schools are problems associated with self-selection and improper model specification, the interpretation of results based on cross-sectional data, the practical significance of some findings, and the limitations of comparing averages. Each of these issues is briefly discussed in the following sections.

Self-Selection and Selectivity Bias

Any study of school effects must contend with the problem of self-selection. Self-selection occurs because students are not randomly assigned to schools nor do they choose schools randomly. Researchers know that self-selection, which may lead to selectivity bias, is a threat to the internal validity of a study; that is, the ability of the researcher to conclude that the effects noted are due to the differences in the treatments applied.

Self-selection prevents a conclusive answer to whether or not Catholic schools are more effective than public schools. Studies that compare Catholic schools with public schools can never eliminate the possibility that some unmeasured or otherwise uncontrolled attribute of students that is associated with self-selection is responsible for a significant amount of the differences between Catholic schools and public schools.

Researchers use either experimental or statistical means to control for the selectivity bias that can be associated with self-selection. Random assignment, which is the most adequate control for selectivity bias, is not possible in studies that compare different types of schools. Most studies, therefore, apply some statistical controls for selectivity bias. Many studies that compare Catholic schools with public schools use multiple regression analysis to control for the problems associated with self-selection. The ability of these models to control for self-selection depends upon whether they contain all of the important variables that are related to the differences in the characteristics of students in Catholic and public schools and that contribute to the differences in outcomes between the schools.

Moreover, it is not possible to know how well even the most sophisticated statistical models achieve the degree of control necessary to eliminate or substantially minimize the effects of selectivity. Therefore, the possibility that the observed differences between Catholic schools and public schools are more a function of the type of students who enroll in each, rather than anything that the schools do, can never be completely eliminated.

Identifying the Effects: Model Specification

Closely related to the problems of self-selection and selectivity bias is the proper specification of statistical models. Improper model specification can occur in three ways, which vary significantly

in the seriousness of their effects. The most serious error associated with improper model specification is the omission of relevant variables that would have a significant effect on the variables that are in the model. Properly-specified models must include all variables that have important relationships with those variables that are in the model. Failure to include important variables may result in spurious relationships among the variables in the model, which in turn, could lead to erroneous conclusions concerning the effectiveness of the schools or the identification of important predictors of school effectiveness.

The second type of model misspecification, inclusion in the model of irrelevant variables, may lead to an erroneous interpretation if not corrected. This problem, however, is correctable at the analysis stage. In a regression analysis, for example, irrelevant variables usually will be discovered because they often receive small and non-significant weights. However, if the same analysis also fails to include one or more important variables, an irrelevant variable may elude detection if it receives a large weight due to an inflated relationship that it may enjoy with another variable.

The third type of model misspecification is incorrectly stating the nature of the mathematical relationships among the variables in the model. This misspecification occurs when the model fails to include significant interactions between predictors (the model postulated is additive rather than non-additive) or other nonlinear terms (e.g., squared terms). This problem also is correctable at the analysis stage by examining a series of alternative models. Often, the theoretical framework that guides the analysis will assist the researcher in identifying variables that may interact with each other and those that may have nonlinear relationships in the model. A model that fails to specify the correct mathematical relationships among the variables will underestimate the prediction of the outcome variable.

Proper model specification always is an issue in the study of school effects. Two things should be noted. First, the results of such studies are only as good as the models on which they are based. Theory is the best safeguard against specification error. Second, the charge of model misspecification, which can never adequately be refuted, is a common attack used by critics of studies that show the superiority of Catholic schools over public schools.

Cross-Sectional Versus Longitudinal Data

Studies that use longitudinal data to determine school effects generally are methodologically superior to those that use cross-sectional data. Cross-sectional data are obtained from students in different grades at the same time, whereas longitudinal data are obtained from the same students at two different grade levels. The use of longitudinal data permits the direct examination of school effects since each student acts as his or her own control. Longitudinal data facilitate the proper interpretation of change in performance between grades. The analysis of cross-sectional data must presume that the older group of students would be comparable to the younger group on all measures if the older group had been measured at the age of the younger group. As a result, the studies that use the longitudinal data from *High School and Beyond* generally are in a better position to deal adequately with questions concerning school effects than are the studies that use only the base-year data.

Researchers usually use statistical significance as one criterion in judging the importance of

research findings. Statistical significance means that the likelihood of the result of a particular statistical test is less than some prespecified probability value, usually .05. In other words, if a result is likely to occur by chance about five or fewer times in every 100 tests, the researcher is willing to conclude that it represents a true difference in whatever is being compared.

In comparing schools, the statistical significance of the difference in performance between students from two or more schools or types of schools depends upon three things: (1) the number of students in each school; (2) the size of the effects;¹ and (3) the level of significance chosen. For a given level of significance, the number of students and the size of the effects are inversely related; that is, the larger the number of students, the smaller the effect size that is necessary for statistical significance.

In some studies, the number of students is so large that very small effects are significant. In these situations, a legitimate question is: What is the practical significance of the effects? To answer this question, the researcher must decide upon the minimum effect size which he or she considers important. Some critics of the research on Catholic schools have argued that, while the differences between Catholic schools and public schools are often statistically significant, these differences are too small to have any practical significance.

The Tyranny of the Average

The research reviewed in this book reveals a Catholic school advantage over public schools on most student outcomes and school organizational measures. As is indicated above, the non-experimental nature of these studies prevents the complete separation of school effects from student effects. Furthermore, the findings of better outcomes from Catholic schools, compared with public schools, which usually are based on a comparison of the average (mean) scores of Catholic and public schools on achievement tests and other outcome measures, cannot be applied universally to all Catholic and public schools.

What the data from the studies do support is that, on average, students from Catholic schools score higher on virtually all outcome measures than do students from public schools, even when relevant demographic characteristics of the students are controlled. However, this finding alone does not imply that: (1) every Catholic school is an effective school; (2) every Catholic school is more effective than every public school or even those public schools with similar characteristics; or (3) more Catholic schools than public schools are effective schools. Neither does this finding alone provide evidence that Catholic schools are more effective than public schools. The effectiveness of a particular school must be individually ascertained. Individual Catholic schools, as well as individual public schools, vary in their degree of effectiveness. Each school must be judged on its own merits.

OVERVIEW OF SUBSEQUENT CHAPTERS

Chapter 2 contains a critical review of the major studies on Catholic schools. The studies are discussed in four groups: research between 1965 and 1978; research sponsored by the United States Department of Education; research on inner-city Catholic schools; and research sponsored by NCEA.

Chapter 3 describes the demography of Catholic schools. In addition to reporting the changes in the number of elementary and secondary schools and their

enrollments from 1965 to 1990, the chapter contains information regarding the percentages of Catholic children who attend Catholic schools, family income, parental education, Catholic school background of parents, and feeder patterns from Catholic elementary schools to Catholic secondary schools.

Chapter 4 contains a review of the research concerning three types of Catholic school outcomes: academic, religious, and values. The academic outcomes include achievement in both elementary and secondary schools, the holding power of Catholic secondary schools, and the postsecondary aspirations, attendance, and success of Catholic secondary school students. The research on religious outcomes mainly involves religious practice and religious knowledge. The review on value outcomes concentrates on family and social values, as well as the predictors of value orientations. When possible, comparisons between the outcomes of Catholic schools and public schools are included.

Chapter 5 presents the research on the environment of Catholic schools in five themes: the school as community; differences in the cultures of Catholic schools and public schools; the academic climate of Catholic schools; discipline and order; and the development of the faith community.

Chapter 6 examines the research on Catholic school teachers. After presenting the research that concerns the demographic characteristics of Catholic school teachers, including the changes in the proportion of lay and religious teachers, the review includes studies on the teachers' professional preparation, goals, work conditions, commitment and satisfaction, and perceived quality.

Chapter 7 describes the rather extensive research on parental choice of Catholic schools. After presenting three paradigms that may explain how parents make choices of schools, the reasons parents give for choosing or not choosing Catholic schools for their children are discussed. The chapter also includes a summary of the research on parental involvement in Catholic schools.

Chapter 8 presents the research on two important themes concerning students: minority students in Catholic schools, and the comparison of single-sex with coeducational Catholic high schools. The section on minority students focuses on academic achievement, educational aspirations, dropouts, school climate, and parental choice. A summary of the available research that compares single-sex with coeducational Catholic high schools on their cultures and their academic, religious, and affective outcomes, as well as on their students' academic attitudes and educational aspirations, completes the chapter.

Chapter 9 summarizes the important findings from the research on Catholic schools, addresses the question of the relative effectiveness of Catholic and public schools, and identifies some potentially fruitful directions for future research, including attention to methodology, the establishment of research priorities, and the continuing examination of important topics relating to Catholic schools.

MAJOR STUDIES

This chapter contains a synopsis of the major research studies on Catholic schools that were published from 1965 to 1990. The studies included here are those that used data from national samples and appeared as a book or monograph. Studies on Catholic schools in professional journals, chapters of books, or papers presented at professional meetings, as well as dissertations, diocesan studies, and unpublished studies, are not reviewed in this chapter; however, some results from certain of these studies are included as supporting evidence. The studies are presented in four groups: (1) early research from 1965 to 1978; (2) longitudinal research sponsored by the United States Department of Education; (3) research on inner-city schools; and (4) research sponsored by NCEA.

RESEARCH FROM 1965 TO 1978

Three major studies characterized the research on Catholic schools during the period from 1965 to 1978. These were the extensive study of Catholic schools by the University of Notre Dame, *Catholic Schools in Action* (Neuwien, 1966), and the two pioneering studies by Greeley and his colleagues, *The Education of Catholic Americans* (Greeley & Rossi, 1966) and *Catholic Schools in a Declining Church* (Greeley, McCready, & McCourt, 1976).

Catholic Schools in Action

In 1962, with funding from the Carnegie Corporation and with the cooperation of NCEA and the Department of Education of the National Catholic Welfare Conference (NCWC), the University of Notre Dame launched a massive study of the Catholic elementary and secondary schools in the United States. The study, entitled *Catholic Schools in Action* (Neuwien, 1966), was commonly referred to as the Notre Dame Study of Catholic Education. At first directed by William H. Conley, and from 1963 by Reginald Neuwien, the study was guided by a distinguished advisory committee headed by Archbishop Lawrence J. Sheehan of Baltimore, the chairman of the Education Department of the NCWC.

All dioceses, except the four in New Jersey, cooperated in the study, which gathered extensive statistics from 9451 elementary schools and 2075 secondary schools concerning enrollment, admission policies, tuition costs, sources of financial support, grade organization, further education of graduates, and ownership patterns. Teachers and principals returned questionnaires that provided data on the ages of teachers, their preparation and experience, the number of full-time principals, the ratio of staff to students, and the number of lay teachers.

Thirteen dioceses were selected for in-depth study on the basis of their geography, size, Catholic population, urban-suburban-rural characteristics, and potential financial resources. From these dioceses, 218 elementary schools and 104 secondary schools were sampled on the basis of their size, ownership, student organization, socioeconomic background of students, location, ratio of

lay to religious teachers, and whether or not religious communities staffed the school. On-site observers obtained data from the 8th and 12th grade students in these schools concerning: academic achievement; understanding of church law, church doctrine, and liturgy; attitudes, values, religious practice, and educational aspirations; and opinions about their schools, parents' role in their education, and religious development. Also, 23,502 randomly-sampled parents of children in the 1st, 8th, and 12th grades provided demographic data and information about their expectations concerning the religious, social, and academic education of their children.

Catholic Schools in Action produced many important findings and made substantial contributions to the research on Catholic schools. A major accomplishment was the collection of data from approximately 92 percent of the elementary schools and 84 percent of the secondary schools in the United States. These data revealed important trends in enrollment, finances, and achievement. With regard to enrollment, the data indicated that the rate of growth in enrollment of the elementary schools, compared with the enrollment of secondary schools, had started to slow appreciably in 1960. The enrollment of elementary schools had increased by 27 percent and that of secondary schools by 30 percent between 1953 and 1959. However, between 1960 and 1962, the increases in enrollment had slowed to 9 percent for elementary schools and to 20 percent for secondary schools. The effects of the end of the post-World War II baby boom had begun to have an impact on enrollment.

In terms of finances, the study found that about half the elementary schools and about three-fourths of the secondary schools charged tuition. In addition, teacher salaries had become a more significant factor in the schools' operating expenses, as the rapid growth of Catholic schools in the previous 10 years required hiring more lay teachers, who were paid a salary higher than the stipend given to teachers from religious communities.

With regard to achievement, the schools were portrayed as being successful. Students performed well on standardized tests and many graduates of Catholic high schools went to college. The study demonstrated that the overall averages of students' ability and achievement test scores were higher than the respective averages on the national norms. In addition, 64 percent of the boys and 46 percent of the girls who graduated from Catholic secondary schools attended college, with about half of each group attending a Catholic college.

Perhaps the most distinctive contribution of *Catholic Schools in Action* was the development of the *Inventory of Catholic School Outcomes* (ICSO), a measure of religious knowledge, values, and attitudes (McCluskey, 1968). Part 1 of the ICSO, which measured understanding of church law, church doctrine, and liturgy, was of particular interest to Catholic school educators. Shuster (1967) noted that few tests of religious knowledge were available prior to the development of the ICSO and the best available were out of date. The students tested did equally well on the three areas of law, doctrine, and liturgy, with girls in all-girls' schools demonstrating the best understanding of these areas. In addition, the 12th graders scored higher than the 8th graders; however, the differences were not as great as expected (Neuwien, 1966, p. 168).

Part 2 of the ICSO measured the religious-moral values, social-civic attitudes, family values, and educational aspirations of the students. Girls, more often than boys, selected the Catholic position on the attitudes and values included, and often, elementary school students selected this position more than did high school students. Not unexpectedly, individual and school differences, such as family background, region of the country, particular diocese, and other local circumstances, played a role in influencing attitudes. For example, students from professional and semiprofes-

sional families demonstrated less prejudice toward minorities and indicated more frequent attendance at Mass than did students from managerial, clerical, semiskilled, and unskilled families. However, these latter students showed stronger support for religious vocations and Catholic family values. Finally, a clear relationship between the religiousness of the family and student attitudes hinted at the importance of the collaboration of the family and school in the development of the student's religious values.

Part 3 of the ICSO measured the students' opinions concerning the relative importance of the stated Catholic school goals, the school's success in meeting the goals, their parents' interest in Catholic schools, and the relative importance of various influences on their religious development. Students generally were very satisfied with the education they were receiving, and they viewed their schools as more successful in achieving their vocational-occupational goals (41.8 percent rated this as excellent) and religious-moral goals (36.6 percent rated this as excellent) than in achieving their academic-intellectual goals (26.2 percent rated this as excellent). The vast majority (91 percent) of the students rated their parents' interest in school as at least average, with 34 percent rating parents' interest as extremely strong. On average, elementary school students rated the interest of their parents higher than did secondary school students. Almost half (48.3 percent) of the students indicated that their parents' example was the most important influence on their religious development, while other students assigned the most important status to the school's religious instruction (22.3 percent), teachers' example (12.6 percent), parish-church instruction (11.8 percent), and classmates' example (5 percent).

Catholic Schools in Action had a number of limitations and was subjected to some criticism from Catholic educators. By design, the study was descriptive rather than evaluative; it attempted to answer the question "how" rather than the question "how well" (Neuwien, 1966). Nevertheless, the study was called disappointing (Conley, 1966) and was criticized for being popular, rather than scholarly (McCluskey, 1968). Some of the criticism was valid. The reporting of results was selective, rather than exhaustive. Neuwien occasionally referred to the results of statistical tests, but the supporting statistics were absent from the report. Furthermore, the rich ethnographic data collected as part of the in-depth study of the 13 dioceses were underutilized (Conley, 1966). The lack of a random sample and the absence of a description and rationale for selecting those schools and students from whom achievement data were obtained, exposed the findings concerning the superiority of Catholic school students on national norms to criticisms of selectivity bias and lack of proper controls (Conley, 1966). On the other hand, some of the criticism appeared to be overly harsh. Conley (1966), for example, characterized the 50 items in Part 1 the ICSO as being "... a totally inadequate sampling of the three vast areas of dogma, morals, and worship" (p. 29). However, the number of items on the questionnaire necessarily had to be limited due to constraints of time, and a well-accepted scale construction process apparently was followed (Neuwien, 1966; Shuster, 1967), although, once again, supporting statistics were not reported.

On balance, despite its limitations, *Catholic Schools in Action* was particularly significant because of its scope and its attempt to measure students' religious understanding, attitudes, and opinions. It truly was a pioneering study of Catholic schools.

The Education of Catholic Americans

Also in 1966, Andrew Greeley and Peter Rossi published their comprehensive study of the effects of a Catholic school education. *The Education of Catholic Americans* (Greeley & Rossi, 1966) attempted more than *Catholic Schools in Action* and was, undoubtedly, the most ambitious study

of Catholic education up until that time (Fay, 1975; McCluskey, 1968). With funding from the Carnegie Corporation, Greeley and Rossi studied whether Catholics who attended Catholic schools were "better" Catholics, more tolerant, and more economically successful than were Catholics who did not attend Catholic schools. Further, they explored whether Catholic schools had a divisive effect on American society by fostering a ghetto mentality among their graduates, whether the Catholic elite supported Catholic schools, and whether the level of Catholic education had an effect on adult religious behavior.

To address these issues, Greeley and Rossi used interview data from 2753 Catholics between the ages of 23 and 57 who were part of a sample from a 1962 database at the National Opinion Research Center (NORC). In addition, 1000 questionnaires were sent to homes of the remaining Catholics in the database who were in the same age group. Also, to increase the number of college graduates in the sample, 1000 readers of *Commonweal* were randomly sampled. Questionnaires also were distributed to households with adolescent children; almost 1000 were returned and 734 were used in the study. Lastly, a small number of Protestants who matched the regional distribution of the Catholics were interviewed to provide comparison data.

Greeley and Rossi found that ethnicity, parental religiousness,¹ and whether or not parents had attended Catholic schools as children were good predictors of the Catholic school attendance of children. Catholics of Irish, French, or Polish backgrounds were more likely to have attended Catholic schools than were Catholics of Hispanic, Italian, or Eastern European (other than Polish) descent. In addition, Catholics whose parents regularly practiced their religion and whose parents had themselves attended Catholic schools were more likely than were other Catholics to have attended Catholic schools. The most important predictors of the religious behavior of the adults in the study were the amount of education they had and, in most cases, the religiousness of their parents. However, an important finding of *The Education of Catholic Americans* was that Catholics who had gone to Catholic schools, compared with other Catholics, scored higher on measures of sacramental behavior, were better informed about their religion, were more orthodox in their beliefs, and participated more in church activities. Furthermore, and perhaps more importantly, Greeley and Rossi found an interaction, which they called a "multiplier effect," between attending a Catholic school and the religiousness of the respondent's parents. On average, the effects of attending Catholic schools on certain religious outcomes were more dramatic for students who came from very religious families, and less so for students from families classified by Greeley and Rossi as moderately religious or nonreligious.

A common impression in some circles at that time was that sending Catholic children to Catholic schools promoted a ghetto mentality that fostered intolerance of individuals who were not Catholic. Greeley and Rossi found no support for this divisiveness. Graduates of Catholic schools were as likely to associate with non-Catholics in their adult lives as were Catholics who went to other schools. Furthermore, the Catholics in their sample who attended Catholic schools were more tolerant with regard to civil liberties and had similar racial attitudes as Catholics who did not attend Catholic schools. The authors concluded that their data produced no evidence for a divisive effect of Catholic schools. Their data did show some evidence, not statistically significant, that younger and better-educated Catholics had higher levels of social consciousness and greater tolerance than did the other Catholics in their sample.

Greeley and Rossi found no economic or occupational disadvantage in having attended Catholic schools. On the contrary, Catholics from Catholic schools were slightly more successful than were Catholics who did not attend Catholic schools. The association between attending Catholic

schools and economic success became stronger for those who had more education and who scored higher on an index of general knowledge administered with the survey. As an explanation for the edge enjoyed by graduates of Catholic schools, Greeley and Rossi offered that the schools facilitated the students' further integration into the Catholic community which, in turn, provided the "emotional well-being" necessary to excel. This explanation was amazingly similar to the support of the functional community that was later offered by James Coleman (Coleman, 1985; Coleman & Hoffer, 1987) as a reason for the academic superiority of Catholic schools.

With regard to whether one level of Catholic education, elementary, secondary, or higher education, was more beneficial than another, Greeley and Rossi concluded that no particular level appeared to be more effective than another. However, they did find another "multiplier effect," an interaction between the amount of Catholic education and adult religious behavior for those Catholics, especially males, who had attended Catholic colleges. Their data revealed that the strong relationship between the amount of Catholic schooling and adult religious behavior of graduates of Catholic colleges existed only for those who also had gone to a Catholic grammar school and a Catholic high school. Furthermore, this relationship was independent of parental religiousness.

In analyzing the data from the sample of adolescents, Greeley and Rossi found a much stronger association between the religious behavior and attendance at Catholic school than they had for the adults in their sample. This stronger association simply meant that the differences in religious behavior between Catholic adolescents who attended Catholic schools and those who did not were greater than the differences between the Catholic adults who had attended Catholic schools and those who had not. In fact, the teenagers in Catholic schools were substantially more religious than the teenagers in public schools, regardless of the religiousness of their parents. The percentage of high-scoring students in Catholic secondary schools exceeded the percentage in parish-based Confraternity of Christian Doctrine (CCD) classes on each of Greeley and Rossi's indexes of religious behavior: sacramental (80 percent vs. 47 percent), honesty (71 percent vs. 49 percent), sexual mores (52 percent vs. 38 percent), doctrinal orthodoxy (75 percent vs. 59 percent), and religious knowledge (61 percent vs. 17 percent). Based on these findings, Greeley and Rossi concluded that CCD was not an attractive alternative to Catholic schools.

The Education of Catholic Americans, like any ambitious and pioneering study, had limitations. Some objections to the study were directed at the sample of Catholics used by Greeley and Rossi. McCluskey (1968), for example, criticized the sample on the grounds of its representativeness (oversampling the Northeast and omitting priests who had attended Catholic schools) and its response rate (23 percent of those sampled did not provide data). Hassenger (1967) also raised a representativeness issue when he noted that former Catholics who may have attended Catholic schools would not have been included in the Catholic sample. McCluskey's and Hassenger's criticisms technically were valid, since any problem with representativeness or nonresponse may bias the results; however, the care with which the sample was determined and the meticulous methodology of the authors minimized the likelihood of serious bias. In fact, the Northeast part of the country contained a disproportionate number of Catholics and the presence of priests from Catholic schools in the sample undoubtedly would have enhanced the effects that favored Catholic schools. The amount of bias from a 23 percent nonresponse cannot be estimated; however, as surveys go, this rate is not large and the number of respondents was sufficiently large to minimize sampling error.

Perhaps a more serious objection to Greeley and Rossi's study was their overreliance on a simple

measure of association to examine important relationships. Because this study preceded the widespread use of regression analysis and path models, Greeley and Rossi were unable to estimate the cumulative effects of their predictors of adult religious behavior. To the authors' credit, however, they did recognize the limitations of improper model specification and controlled, when possible, for variables that they viewed as important and as potential contributors to the relationships they examined.

Catholic Schools in a Declining Church

Catholic Schools in a Declining Church (Greeley, McCready, & McCourt, 1976) was essentially a replication of *The Education of Catholic Americans*. Like its predecessor, the study addressed questions concerning the effectiveness of Catholic schools and attitudes toward Catholic schools to find out if the conclusions of the 1966 report still held. This study differed, however, from its predecessor in two important ways. First, Greeley and his associates employed more advanced statistical analyses, which enabled them to examine better the effects of specific predictors on the outcome measures of interest. Second, the study followed a decade of unrest both in the church, because of changes promoted by Vatican Council II and the reaction to the encyclical, *Humanae Vitae*, and in society, because of the sexual revolution, the Civil Rights Movement, and the general agitation in the country caused by the Vietnam War. Greeley concluded that, despite these pressures, the effectiveness of Catholic schools had increased; however, the schools themselves were in serious trouble because of declining enrollments and increasing costs.

The authors had access to a nationally representative sample of 1128 Catholic adults from an existing NORC sample. Complete data were obtained from 927 Catholic adults who were interviewed during the Spring of 1974. Greeley and his colleagues used two different statistical models to analyze their data, a religious behavior model and a social change model. The religious behavior model combined the variables of age, sex, parental religiousness, years of education, years of Catholic education, and spouse's religiousness to predict adult religious behavior or attitude. The social change model examined changes in religious behavior or attitude over time between the 1963 group of adult Catholics sampled for *The Education of Catholic Americans* and the 1974 group used in this study.

The study's principal conclusion was that Catholic schools were more important than they were a decade before. Greeley and his associates saw Catholic schools increasing their influence on their graduates at a time of traumatic transition in the church. The years of Catholic education had now become more important than parental religiousness in predicting adult religious behavior. In a time of general decline in religious behavior, Greeley, McCready, and McCourt found a much slower rate of decline for those who had gone to Catholic schools, especially for males and those under 30, than for those who had not attended Catholic schools. Compared with a decade earlier, the relationships between number of years in a Catholic school and each of the following increased: financial contributions to the church, participation in church functions, favorable attitudes toward church leaders, support for vocations, and private prayer. However, relationships decreased between numbers of years in Catholic schools and attendance at Mass, reception of the sacraments, sexual and doctrinal orthodoxy, and respect for the church's teaching authority. Parochial school attendance continued to produce an economical and occupational advantage. In addition, values and attitudes such as religious hopefulness and racial tolerance correlated with Catholic school attendance.²

Despite severe declines in the enrollment of Catholic schools, support for Catholic schools among

American Catholics still remained strong. Eighty percent of Catholics favored the continuation of Catholic schools and 80 percent also indicated their willingness to contribute more money to support their local parochial schools. Catholics continued to view religious education as the major advantage of Catholic schools, with discipline and better education as other important advantages. Greeley and his associates, as Greeley and Rossi had done in the 1966 report, maintained that no evidence existed to show that CCD was an adequate substitute for the religious education received in the Catholic schools. On the other hand, Catholic parents with school-age children reported the prospects for a better education as the most important reason for sending their children to Catholic schools. For Catholic parents who did not send their children to Catholic schools, the unavailability of schools, followed by uncertainty about whether Catholic schools provided a better education than public schools, were more important than financial factors in making their decisions.

RESEARCH SPONSORED BY THE UNITED STATES DEPARTMENT OF EDUCATION

Two major longitudinal research efforts in the 1980's, sponsored by the National Center for Education Statistics of the United States Department of Education, directly concerned Catholic schools. The first effort was *High School and Beyond* and the second was the *National Education Longitudinal Study of 1988* (NELS:88).

High School and Beyond began in 1980 with the collection of base-year data from a nationally representative sample of high school sophomores and seniors from over 1000 schools, 84 of which were Catholic high schools. The National Opinion Research Center (NORC) at the University of Chicago collected the survey data. The design of *High School and Beyond* included gathering extensive data from a highly stratified, national probability sample of over 30,000 sophomores and 28,000 seniors, as well as from administrators, teachers, and parents from each school. Many of the students from the base-year sample subsequently participated in follow-up surveys in 1982, 1984, and 1986, thus producing an important national longitudinal database.

NELS:88 was designed to provide longitudinal data about critical transitions experienced by young people as they progressed from elementary, middle, or junior high schools to high school and beyond high school to higher education or employment. The base-year data for NELS:88 were obtained from 24,599 8th graders from a nationally representative sample of over 1000 public, Catholic, independent, and other private schools. Some 2578 8th graders were from Catholic schools. In addition to the base-year data on a variety of personal, demographic, attitudinal, and achievement variables from the students, data also were collected from teachers, parents, and school administrators. Like *High School and Beyond*, follow-up data were planned at two-year intervals.

Public and Private Schools

In 1981, James Coleman, Thomas Hoffer, and Sally Kilgore released *Public and Private Schools*, the first major analysis of the 1980 base-year data from *High School and Beyond*. They subsequently published their findings in the book, *High School Achievement: Public, Catholic, and Private Schools Compared* (Coleman, Hoffer, & Kilgore, 1982). Focusing on the differences between public and private schools, the authors concluded that private schools produced better cognitive outcomes than did public schools. Their analyses revealed that, after controlling for differences in family background, students in Catholic high schools and in other private high

schools achieved higher scores in verbal skills and mathematics in both the sophomore and senior years than did their counterparts in public schools. In addition, students from families with diverse educational backgrounds and from different ethnic groups were more homogeneous in their achievement in Catholic schools than in public and other private schools. Furthermore, the differences in educational expectations and aspirations between students from different types of schools were similar to the differences in achievement.

Coleman and his associates attributed the better performance of students in Catholic schools to the strong discipline, high expectations of the teachers, and structured curriculum that characterized these schools. Catholic schools provided a safer, more disciplined, more orderly environment, and Catholic school students had higher rates of attendance, did more homework, and generally took more rigorous academic subjects than did public school students. Based on their results, Coleman, Hoffer, and Kilgore (1982) suggested that public policy should encourage an expanded role for private education in the United States.

The findings of Coleman and his associates unleashed a furious debate, characterized by many challenges to both their methodology and their policy implications. Special issues of the *Harvard Educational Review* (November, 1981) and the *Sociology of Education* (April/July, 1982; October, 1983; July, 1985) were devoted to this debate. Critics were particularly upset with two findings: (1) the assertion that Catholic schools were more effective than public schools and (2) the claim that Catholic schools more nearly approximated the "common school" ideal of American education than did public schools, in that the achievement levels and educational aspirations of students from different parental educational and ethnic backgrounds were more nearly alike in Catholic schools than in public schools.³ In other words, Catholic schools were beneficial not only to students from advantaged backgrounds, but also to those from disadvantaged backgrounds.

A major criticism directed against the findings of Coleman and his colleagues concerned the presence of selectivity bias (Alexander & Pallas, 1983; Goldberger & Cain, 1982; Keith & Page, 1985; McPartland & McDill, 1982; Murnane, 1981; Noell, 1982). Selectivity bias, a chronic problem in school effectiveness research, makes it difficult to separate effects due to student differences from effects due to school differences (Alexander, 1987). As Alexander and Pallas (1983) aptly noted, when good students go to good schools, it is difficult to know which is responsible for the good performance that is likely to be observed. Clearly, selecting a school is not a random process, but is influenced by factors that may affect achievement. The attempt by Coleman and his associates to eliminate spurious results due to selection bias through statistical adjustments did not account for differences in competency or achievement that predated high school (Alexander & Pallas, 1983), or for differences in motivation and educational aspirations, particularly of minority students who attended Catholic schools (Keith & Page, 1985). Thus, the critics of Coleman and his associates claimed that the adjustments did not go far enough. Furthermore, Goldberger and Cain (1982) argued that selectivity bias was compounded since the outcome measures used by Coleman were really measuring pre-high-school material.

Coleman, Hoffer and Kilgore also came under particularly harsh attack for the way in which they used a school's curriculum as a variable in their analyses (Alexander & Pallas, 1983; McPartland & McDill, 1982). Following their basic statistical analyses, Coleman and his associates used the curriculum track that a student chose as a school-process variable to explain why differences between Catholic and public schools occurred. They argued that Catholic schools were more effective since more students in Catholic schools were in academic tracks. The critics claimed that tracking⁴ really represented initial student differences and, when used as a control variable in the

analyses, the differences claimed for Catholic schools were greatly diminished or disappeared completely.

A third criticism of Coleman, Hoffer, and Kilgore's findings concerned the appropriateness of the tests used to measure the cognitive outcomes in *High School and Beyond* (Goldberger & Cain, 1982; Heyns & Hilton, 1982). The objections concerning the tests were that they were too short, had ceiling effects, and that some of them were not curriculum specific and, therefore, not good measures of achievement in high school. The critics claimed that the reading, mathematics, and vocabulary tests, the very ones for which the differences between the Catholic school students and public school students were larger, were generic tests of general ability, rather than achievement tests linked to the curriculum. Thus, the Catholic school advantage on these tests was largely a function of pre-high-school ability and out-of-school experiences, rather than a high school effect. On the writing, science, and civics tests, which were linked to the curriculum, the differences between Catholic school students and public school students were smaller.

A fourth criticism of the findings was the reliance on cross-sectional data (Alexander, 1987). The longitudinal design of *High School and Beyond* enabled subsequent analyses to overcome this criticism. Undoubtedly, many critics were convinced that Coleman, Hoffer, and Kilgore's findings would not hold up with longitudinal data. Hoffer, Greeley, and Coleman's (1985) analyses of the longitudinal data from the 1982 testing confirmed a higher gain from the sophomore to the senior year for students in Catholic schools than for students in public schools in reading comprehension, vocabulary, mathematics, and writing. As in the case of the base-year data, analyses of the longitudinal data confirmed that school factors and student behaviors explained a significant portion of achievement gains for all students. Attendance at a school that provided an academic emphasis and a positive climate had a similar impact on achievement gains for all groups of students, whether white or black, whether enrolled in a Catholic school or a public school. These positive school processes, however, were more likely to be found in Catholic than in public schools.

In summary, while most reanalyses of the base-year data confirmed the presence of the Catholic school effect, it was the analyses of the longitudinal data that produced the most convincing evidence. Primarily as a result of analyses of the data collected in 1982, the majority of researchers subsequently agreed that the overall Catholic school advantage was actually much smaller than Coleman and his associates originally suggested (Raudenbush & Bryk, 1986; Willms, 1984). Critics (Alexander & Pallas, 1985; Keith & Page, 1985; Noell, 1983) argued that the effects, while statistically significant, were too small to be practically significant. However, analyses comparing all Catholic schools with all public schools were likely to have reduced the overall Catholic school effect. As Lee and Bryk (1989) later showed, the Catholic school effect on achievement was largest when comparing lower social class schools and virtually disappeared when comparing higher social class schools. Whatever the size of the effects, the Catholic school advantage that did occur apparently primarily was due to a homogeneous and rigorous curriculum, good discipline, and a supportive school climate, which produced positive results for students of all backgrounds.

Catholic Schools and Minority Students

In 1982, Greeley published the results of his research concerning minority students in Catholic high schools. Greeley used all 7000 Catholic high school students and a random sample of 7000 public school students from the base-year of *High School and Beyond* to explore why black and Hispanic students who attended Catholic high schools displayed much higher levels of academic

effort and achievement than did black and Hispanic students who attended public high schools.

Greeley concluded that the greater time spent on homework and higher academic performance of Catholic school students were explained, in part, by the type of students who attended the schools, and, in part, by characteristics of the schools. The important characteristics were the ownership by a religious community, the quality of discipline, and the quality of instruction in the school. Greeley found that much of the differences in discipline between public and Catholic schools resulted from the effectiveness of the presence of a religious order and from the student's own view of the disciplinary system as fair and effective. Differences in the college aspirations of minority students were explained by the more affluent and educationally ambitious family backgrounds of the Catholic school students and by the students' own personal motivation. However, he argued that superiority in the achievement of minority students from Catholic high schools was because they studied more than did their public school counterparts and because the academic instruction in Catholic schools was superior to that in the public schools. The quality of instruction was the strongest correlate of academic outcomes, and it remained a very powerful predictor, even when all background variables were taken into account.

Greeley found that Catholic schools were particularly effective for multi-disadvantaged students: minority students from home backgrounds of low educational achievement. Like Coleman and his associates, Greeley reported much lower correlations between social class and achievement for Catholic school students than for public school students; that is, the differences in achievement for students from different social classes were smaller for Catholic schools than for public schools. Furthermore, the correlation was much lower for seniors who attended Catholic schools than it was for sophomores in Catholic schools. Greeley argued that the success of Catholic schools for black and Hispanic students was due to the fact that, as institutions, these schools were simply continuing to socialize effectively the children of the urban poor, just as they had done for the Irish, Italian, Polish, and other immigrants of previous eras.

Catholic Schools and Minority Students was the first study of Catholic high schools and minority students. Greeley's study complemented the work of Coleman and his colleagues, his analyses rarely duplicated their analyses, and his results substantiated and extended their findings concerning the effectiveness of Catholic schools for minority students. Perhaps the most important contribution of Greeley's study, however, was his insight concerning the importance of the Catholic school's environment and community to its effectiveness. A few years later, Coleman and Hoffer developed this theme further.

The Impact of Communities

In their study, *Public and Private High Schools: The Impact of Communities*, Coleman and Hoffer (1987) examined anew many of the questions raised in their earlier work, but this time with the benefit of the longitudinal data gathered in 1982 and 1984, rather than the cross-sectional data from 1980. Coleman and Hoffer also made some methodological changes to improve their analyses of the data. To examine better the interactions between predictors of achievement and type of school, they used separate regression equations for Catholic schools, public schools, and private schools, rather than one equation for all schools. In addition, to account more adequately for the influences that they presumed were contributing to the achievement of the students, they added predictors to their regression models, including region of the country, college expectations, and sophomore achievement.

The analysis of the longitudinal data confirmed the greater growth in verbal skills and mathematics from the 10th to the 12th grade for students in Catholic schools, compared with students in public schools; however, virtually no effects were found for science and civics. When family background was controlled, Coleman and Hoffer reported grade-equivalent changes of about one year more for the average Catholic school student, compared with the average public school student for reading, vocabulary, mathematics, and writing, but only a slight, and not statistically significant, advantage for Catholic school students in science and civics. The achievement benefits for Catholic schools were considerably greater for black and Hispanic students than for non-Hispanic white students. For example, Coleman and Hoffer reported that the Catholic school advantage in verbal achievement for black and Hispanic students was more than double that of the white students. In addition, Catholic school effects were more pronounced for students from "lower" family backgrounds or with lower initial achievement than they were for students from "higher" backgrounds and higher initial achievement. These results confirmed Greeley's (1982) major finding that Catholic schools were more effective than public or other private schools in raising the academic achievement of populations that traditionally achieve at lower levels: blacks, Hispanics, children from families that provide lower levels of parent support, and children from families with lower socioeconomic standing. Finally, Catholic schools also were found to have the lowest dropout rate, and their graduates who went to college were more likely to stay in college, compared with graduates from public schools and other private schools.

Coleman and Hoffer used the emphasis that the Catholic schools placed on mathematics as part of the reason for the higher achievement of their students in mathematics. They found that the average Catholic school placed greater emphasis on mathematics than on science, and the emphasis on mathematics was greater in the average Catholic school than in the average public school. Catholic school students in both academic and general tracks took a considerably higher number of specialized math courses than science courses, and the average Catholic school student took more math courses than the average public school student, especially those in the general track.

These findings were important since the use of longitudinal data removed the tentativeness of analyses based on cross-sectional data. However, perhaps the most important contribution of the study was the reason Coleman and Hoffer provided for the superiority of Catholic schools. Catholic schools, they argued, generally not only have value consistency, like most private schools, but also they ordinarily form a functional community, which most other types of schools, private and public, fail to achieve. Furthermore, this functional community generates a considerable amount of what the authors called *social capital*, that is, the empowerment that exists in relationships between individuals. Thus, while the proximate reason for the superiority of Catholic schools was greater academic demand, Coleman and Hoffer argued that this demand stemmed from the great control that the functional community was able to exercise.

Coleman and Hoffer believed that the religious community in which the Catholic school is grounded provided the basis for the functional community and the high levels of social capital. The functional community of Catholic schools was seen as supporting a strong academic curriculum, hence promoting better achievement; as exercising greater control within the school so as to be able to place greater academic demands upon students, hence being effective for minority and low-income students; and as providing a communal atmosphere and social resources that facilitate the enculturation of students into the schools, hence preventing a large number of dropouts.

National Education Longitudinal Study of 1988

The preliminary findings from the base year of NELS:88 (Hafner, Ingels, Schneider, & Stephenson, 1990; Rock & Pollack, 1990; Snyder, 1989) revealed that in 1988, Catholic elementary schools enrolled a significant number of 8th graders from a variety of different racial/ethnic backgrounds. About 25 percent of the 8th graders in Catholic schools were members of a racial or ethnic minority. Asian and Hispanic students constituted a higher-than-expected proportion of the 7.5 percent of the nation's 8th graders enrolled in Catholic schools in 1988, while black and American Indian students constituted a lower-than-expected proportion. However, black and Hispanic students made up a much higher proportion of the enrollment in Catholic schools than in independent and other private schools.

Catholic schools enrolled large numbers of 8th graders from all socioeconomic (SES) levels. The SES levels of students in Catholic schools and the educational levels of their parents generally were higher than were those of the 8th graders in public schools, but not as high as the 8th graders in independent schools and other private schools. Just over one-third of the students in Catholic schools were in the highest SES quartile, compared with one-half of those in other religious private schools and seven of every eight students in independent schools. About 10 percent of the students in Catholic schools were in the lowest SES quartile.

On average, Catholic school 8th graders scored higher than did public school students on the tests given in NELS:88. Catholic school students were more likely to score in the highest quartiles of the reading, mathematics, science, and social studies (a combination of history, citizenship, and geography) tests given in NELS:88. The advantage of the Catholic school 8th graders over the public school 8th graders was greater in reading and social studies than in mathematics and science. In addition to the traditional percentile scoring, the reading and mathematics tests were scored according to proficiency levels. For the reading test, the highest proficiency level was the ability to make inferences beyond the author's main idea and/or to understand and evaluate abstract concepts. A considerably higher percentage of the 8th graders in Catholic schools (44 percent) than in public schools (32 percent) attained this level. For the mathematics test, essentially the same proportion of Catholic school students (19 percent) as public school students (18 percent) attained the highest proficiency level of conceptual understanding and/or development of a solution strategy.

The average Catholic school 8th grader spent more time on homework per week than the average public school 8th grader (six and a half hours versus five and a half hours), but about the same amount of time per week watching television (over 21 hours). On the other hand, students from the independent and other private schools spent much less time watching television (between 14 and 17 hours per week) and as much or more time (up to 10 hours per week) doing homework as Catholic school students.

Catholic elementary schools offered a variety of courses to meet the individual needs of their students. The typical 8th-grade student in a Catholic school was as likely to be enrolled in an advanced mathematics or algebra course as the typical public school 8th grader; however, the Catholic school students were slightly more likely than the public school students to have some exposure to remedial mathematics and much more likely to be involved in remedial English, either as separate courses or as part of their regular courses. In addition, Catholic school 8th graders were slightly more likely than public school 8th graders to be enrolled in a science course, although the science course was much less likely to have a laboratory component.

Catholic schools also were characterized by the richness and variety of their extracurricular activities. Participation rates in varsity sports, science fairs, and on the staffs of student newspapers or yearbooks were higher in Catholic schools than in public schools. On the other hand, Catholic school students were less likely than public school students to belong to a band, orchestra, or chorus.

Finally, the environments of the Catholic elementary schools in NELS:88 exhibited the same characteristics of the functional communities that, according to the research, contributed to the effectiveness of the Catholic high schools in *High School and Beyond*. A higher percentage of the 8th graders in Catholic schools than in public schools reported that the teaching in the school was good, they had good relationships with their teachers, and their teachers were interested in them, praised their efforts, and really listened to them. In addition, Catholic school students perceived their schools had better discipline and fewer problems with disruptive behavior, threats to personal safety, and drugs than did students in public schools.

The above findings, while similar to those from studies based on *High School and Beyond*, were from preliminary descriptive studies and therefore, less significant than those from studies that utilized statistical controls. The final evaluation of the importance of studies based on NELS:88 must await the availability of research using more sophisticated analyses.

RESEARCH ON INNER-CITY CATHOLIC SCHOOLS

USCC Study

In 1977, the United States Catholic Conference commissioned a study by Thomas Vitullo-Martin to better determine the needs of Catholics in the inner city. Coming during a period when Catholic schools, especially those in large urban areas, were experiencing severe declines in their enrollments, this timely study, *Catholic Inner-City Schools: The Future* (Vitullo-Martin, 1979), was a compilation and synthesis of existing information on inner-city Catholic schools, rather than a collection of new empirical data. Vitullo-Martin found that, while many inner-city schools had closed, many of the ones that remained open were serving public purposes by enrolling large percentages of minority students, many of whom were not Catholic. Earlier, these schools had enrolled large numbers of white students, but the white enrollment had declined because of lower birth rates, the migration of the population from center cities to the suburbs, and the perception of less need for Catholic schools on the part of some Catholic families. From 1970 to 1977, despite a decline of about one million students in the total enrollment of Catholic schools, the number of blacks in Catholic schools increased by about 10,000. The decline in the black enrollment in some locales, however, was directly related to the closing of inner-city schools.

Vitullo-Martin noted the special problems of the inner-city parish schools: decline in parish revenues due to an aging and shrinking Catholic population; older facilities that required extensive maintenance and capital improvements; and, often, the parish's difficulty in adjusting to changing ethnic populations. He argued that the problems of inner-city parishes were compounded because the traditional parish structure in a diocese divorced the wealthy from the poor. Thus, unless a diocese developed a mechanism to provide financial assistance to inner-city parishes, the future of inner-city schools would be in jeopardy. Ironically, in most dioceses, inner-city parents already paid substantially higher tuition for Catholic schools than did parents from suburban or rural parishes. Finally, Vitullo-Martin raised the question of the importance of inner-

city schools to the well-being of the community and challenged the church to take a position regarding these schools.

Among the major contributions of Vitullo-Martin's study were his analyses of the principal benefits of inner-city Catholic schools and why these schools were effective. He argued that inner-city Catholic schools were an important source of quality education for the community. As such, they aided public schools by helping to keep families in the city which, in turn, increased the tax base, resulting in more income to the local public schools from local sales and income taxes. In addition, inner-city Catholic schools often were more integrated than public schools, so they acted as a force that resisted the racial and class segregation of the cities fostered by the neighborhood boundaries of public schools. Also, these schools taught religious values and often contributed to the stabilization of the neighborhood. Vitullo-Martin hypothesized that inner-city Catholic schools were effective because they: (1) were more effective community organizations than were public schools; (2) engaged the support and involvement of parents better than did public schools; (3) reinforced the family's values and its view of the importance of education; and (4) created a sense of pride in the students and parents because these schools were the products of parents' and teachers' efforts.

Inner-City Elementary Schools

Three years after the publication of Vitullo-Martin's study, the Catholic League for Religious and Civil Rights released the results of the first major empirical study on Catholic inner-city elementary schools. Designed by Rev. Virgil C. Blum, S. J., and authored by James Cibulka, Timothy O'Brien, and Donald Zewe, *Inner-City Private Elementary Schools: A Study* (Cibulka, O'Brien, & Zewe, 1982) involved 54 private Title I schools, with a minority enrollment of at least 70 percent, located in Chicago, Detroit, Los Angeles, Milwaukee, Newark, New Orleans, New York, and Washington, D. C. Virtually all of the schools that participated in the study were Catholic schools. The purposes of the study were to discover why low-income minority parents chose private schools and what problems these schools faced. Data were obtained during the 1978-79 school year from almost 4000 parents, over 300 teachers, and 50 principals.

Cibulka and his colleagues found that these schools were not elitist and generally exercised only limited selectivity in their admissions. Rarely was selectivity achieved through expulsion. The families who used these schools were quite atypical of most American families. They were larger, poorer, and more likely to be headed by a single parent. The parents were slightly better educated than was the average low-income minority parent and more than half of them were not Catholic. The authors found that parents selected these schools because they sought the best education for their children. Religious training was valued, but it was not the compelling reason why parents enrolled their children in these schools. Parents perceived that these schools offered to their children a quality education and were more responsive to their needs than were the public schools. The parents especially cherished these schools and, in most cases, they made great sacrifices to send their children to them.

As Greeley (1982) had documented for high schools, Cibulka and his associates found significant school-related correlates of academic success in the elementary schools. Generally, students in these schools performed rather well on national achievement tests. Teachers' attitudes and experience were particularly important predictors of academic performance. The schools generally had highly motivated and dedicated teachers, about 30 percent of whom were members of religious communities. Most teachers taught in these schools because of the religious

environment and the sense of community that existed among faculty, students, and parents. The local control and shared decision-making that characterized these schools resulted in the creation of a family-like atmosphere. As a result, these schools had few attendance and discipline problems, and parents believed that the schools played an important role in shaping their children's attitudes and behaviors.

Cibulka and his colleagues used two models to examine the effectiveness of these schools. From a school outcomes model, which traditionally is used in school effects' studies, Cibulka and his associates found important indicators of effectiveness similar to those found by other researchers (Brookover, Beady, Flood, Schweitzer, & Wisenbaker, 1979; Purkey & Smith, 1983; Rutter, Maughan, Mortimore, Ouston, & Smith, 1979). These indicators were: (1) strong instructional leadership; (2) the concept of shared work; (3) a safe school environment; and (4) clarity of mission and shared purpose. However, the authors argued that a preference model, which judges a school's effectiveness by the choices parents make and by their stated satisfaction with the services that the school provides, offered the best evidence for the success of these inner-city schools.

These schools were not without their problems, however, and many were severe. Cibulka and his colleagues identified the following areas of concern: the low socioeconomic levels of parents and sponsoring parishes; the difficulty of attracting and retaining quality faculty; the increasing financial burden of maintaining the physical facilities; and the tendency of the school system administrators to use ad hoc planning methods. They concluded that without some kind of change in the financing of Catholic education, either at the diocesan level through direct subsidies or at the national or state level through tax credits or education vouchers, the problems faced by inner-city Catholic schools would lead to more school closings.

In addition to the detailed data concerning private inner-city schools provided by the authors and their careful in-depth analyses of these data, this study provided important insights concerning: (1) who patronizes inner-city schools and why; (2) how the responsiveness to parents of these inner-city schools is essential to their success; (3) the egalitarian nature of these schools; (4) the governance of these schools; (5) the community among faculty, students, and parents that exists in these schools; and (6) the effects that different public policy options, if implemented, would have on these schools.

THE NCEA STUDIES

Effective Catholic Schools

In 1978, the Department of Chief Administrators of Catholic Education (CACE) of NCEA established a National Center for Research in Total Catholic Education as a service to its members because many of them were not able to support research themselves due to fiscal and personnel limitations. In 1982, in the wake of the first wave of results from *High School and Beyond*, the Board of Directors of the Center awarded a contract to the Huron Institute of Cambridge, Mass., to study the way Catholic schools were organized, the kinds of students they enrolled, and the policies and procedures that characterized their operation. The resulting study, *Effective Catholic Schools: An Exploration* (Bryk, Holland, Lee, & Carriedo, 1984), combined the survey data from all Catholic schools that participated in *High School and Beyond* with extensive field data gathered from seven Catholic high schools in six cities: Baltimore, Boston, Cleveland, Louisville, San Antonio, and Los Angeles. These schools were considered to be good, but not the elite or the

very best schools. Data also were obtained from a sample of 13 Catholic elementary schools from which these high school students came.

Bryk and his associates confirmed many of the findings of Coleman, Hoffer, and Kilgore (1981, 1982) and Greeley (1982) regarding the academic and communal nature of Catholic high schools, as well as the particular benefit of these schools for disadvantaged students. They found that the high schools in the study shared a common value system and had a traditional curriculum that emphasized core academic courses. A strong consensus existed among teachers regarding the academic nature of the school. Teachers had high expectations for students regardless of the students' background characteristics, and many teachers were concerned with the personal lives of students. Although from diverse backgrounds, students were relatively homogeneous in their commitment to learning and to the values espoused by the school, as well as in their participation in the school community. The schools had high levels of student engagement, low rates of absenteeism and tardiness, and few incidents of disruptive behavior. Compared with students from public schools, students from these schools displayed more positive academic attitudes and behaviors.

Bryk and his associates used their field data to focus on some of the particularly Catholic aspects of these schools that Coleman, Hoffer, and Kilgore (1981, 1982) and Greeley (1982) had not emphasized. They reported that the schools in the study had a religion sequence that emphasized faith as a developmental process. From their survey data they found that parents and teachers often had somewhat different views about the religious character of these schools. Parents stressed religion as primarily a relationship with God, while teachers emphasized the need to care about others and to be concerned with social justice. Many teachers viewed their work in the schools as a form of ministry and their role as one of shaping young adults. As documented in previous research (Cibulka et al., 1982; Kraushaar, 1972), parents selected these schools not only for religious reasons but also for academic reasons. Often, families of higher social class were more likely to choose these schools for academic reasons, and families of lower social class for religious reasons.

Bryk and his colleagues employed detailed statistical analyses based on carefully specified models to examine the influence of particular variables on academic attitudes and behaviors. The results of the analyses showed that family background, especially religiousness and social class, and the degree of parental involvement with their child's schooling had substantial effects on the child's academic attitudes and behaviors. School factors, other than academic climate, had only a modest influence on these attitudes and behaviors. In terms of performance on achievement tests, girls scored lower in mathematics and science and higher in writing than did boys. Students in Catholic high schools, who had attended Catholic elementary schools, scored higher in vocabulary, reading, writing, and civics; scored about the same in mathematics; and scored lower in science than did students who had attended public elementary schools. The best predictors of achievement were academic background and social class for sophomores, and selection of academic courses and participation in co-curricular activities for seniors. In addition, Bryk and his colleagues corroborated Coleman's and Greeley's finding that social class was much less strongly associated with achievement in Catholic schools than in public schools.

The 13 elementary schools in the study had a similar curriculum that was characterized by a strong emphasis on skill building in reading, language arts, and mathematics. Bryk and his associates found few examples of advanced courses, use of technology, and innovative teaching techniques, and strikingly few examples of collaboration or even communication between different elemen-

tary schools. Likewise, compared with public schools, the authors found considerably less coordination between these elementary schools and the Catholic high schools they served. The authors recognized as delicate issues those questions concerning (1) the mission of elementary schools that enroll high percentages of non-Catholic students and (2) the financing of elementary schools that enroll significant numbers from outside the parish.

Bryk and his associates devoted the final section of their report to an exposition of two pressing problems facing Catholic schools: finances and governance. Regarding finances, Catholic schools had become more tuition-dependent during the 15 years prior to the study. The financial condition of schools varied by location and governance type, with the greatest financial crises being experienced by inner-city diocesan or parish schools. Bryk and his colleagues identified four factors contributing to the financial difficulties faced by the schools: (1) declining subsidies from contributed services of religious orders; (2) increasing physical plant costs due to a long history of deferred maintenance; (3) need for substantial improvement in very low faculty salaries; and (4) likely need to increase expenditures in response to the nationwide concern about improving the quality of schools. Regarding governance, the authors argued that the position of principal of a Catholic school was very demanding and required expertise in many diverse areas: personnel, finances, community relations, curriculum and supervision, and Catholic leadership. The authors also pointed out that the services traditionally provided by religious communities (administration, evaluation, and supervision) had diminished, placing a greater governance burden on dioceses.

The importance of this study was its in-depth analysis of Catholic schools, using not only the data from *High School and Beyond*, but also data obtained from on-site observations. As comprehensive as *High School and Beyond* was, however, it did not include information on certain aspects of Catholic schools that make Catholic schools different from other schools, such as the spiritual dimension of the schools. While Bryk and his associates did address some of the unique characteristics of Catholic schools, their sample was limited to just seven schools. Thus, NCEA sought funds for an additional study that would attempt to capture the essence of Catholic high schools better than *High School and Beyond* had, and would feature low-income students, the population for which Coleman, Greeley, and Bryk had found Catholic schools to be particularly effective.

A National Portrait

With funding provided by the Ford Foundation, NCEA in collaboration with the Search Institute launched a major nationwide research project on Catholic high schools in 1983. The project had two parts: (1) the creation of a national composite of the resources, programs, facilities, personnel, and policies of Catholic high schools in the United States, and (2) an assessment of how schools that served low-income students fared in areas of academics, life skills, values, and faith.

The first publication from the project, *The Catholic High School: A National Portrait* (Yeager, Benson, Guerra, & Manno, 1985), presented benchmark data on many previously unexplored characteristics of Catholic schools. Administrators from 910 Catholic high schools (62 percent of all Catholic high schools in the country) provided the basic data for the study by completing a lengthy questionnaire about their schools. Later, administrators from an additional 259 schools completed a short form of the questionnaire for a total participation of almost 80 percent of the Catholic schools in the country.

The schools placed similar emphasis upon academic excellence, faith development, and the

development of community. Yeager and his associates reported that the schools reflected these values in their goals, requirements, academic and service programs, religious activities, and decision-making. The schools placed a high priority on academic excellence, with approximately 80 percent of the students enrolled in a college preparatory or academic program. In addition, the schools had climates characterized by discipline combined with caring, good morale among teachers and students, and high levels of parent participation. But there also was diversity among the schools. Some schools had special missions to provide a general or vocational education to the non-college-bound student. Some served a particular type of student. Differences in forms of governance existed, with some schools privately owned, in most cases by religious orders, and other schools owned by a diocese or a parish.

Yeager and his associates collected extensive data concerning the students served by the schools and the teachers who worked there. Students from a large cross-section of families, not typically economically-advantaged families, attended these schools. As estimated by the principals, the income of families with children in these schools was similar to that of families nationally, except that families with incomes under \$10,000 and over \$50,000 were underrepresented. Eighteen percent of the students in these schools were members of an ethnic or racial minority. Compared with public schools, the percentage of minority students enrolled in Catholic high schools was slightly lower; however, these schools enrolled a lower percentage of black students and a higher percentage of Hispanic students than did the public schools. The principals viewed the teachers as being deeply committed, to both high academic standards and faith development. Although over three-fourths of the teachers were members of the laity, many regarded their work as a ministry to the church. The authors found, however, that teacher turnover was high: 54 percent of the teachers had at most, five years of teaching experience. Yeager and his colleagues presumed that this high turnover rate was related mainly to the inadequate or unsatisfactory compensation that the teachers received.

Since 1978, 36 percent of the schools reported an increase in enrollment and 38 percent reported a decrease. Schools that reported an increase in enrollment generally were private, enrolled only girls, had enrollments over 1000, and were located in New England or the West. Coed schools generally reported decreases in enrollment. The authors found that parochial high schools were somewhat dissimilar to private, diocesan, and interparochial high schools. Parochial high schools had fewer resources and less adequate facilities, paid lower salaries to teachers, and had higher percentages of minority and low-income students than did the other types of Catholic high schools.

The study concluded with an agenda for Catholic high schools for the 1980's. This agenda included: (1) the need to develop strategies to address the pressing financial problems that threaten Catholic high schools, especially schools that serve low-income students; (2) a call for well-conceived, multi-faceted development programs; (3) new efforts to provide opportunities for the handicapped; (4) the recruitment and retention of minority students; (5) efforts to build more stable faculties, which must include more adequate compensation for teachers; (6) an increase in the participation of lay teachers in school governance; (7) the need to evaluate and to improve service programs; (8) a high priority for the fine arts; and (9) a call for increased use of technology in instruction.

Low-Income Students

The second publication from the project, *Catholic High Schools: Their Impact on Low-Income*

Students (Benson, Yeager, Wood, Guerra, & Manno, 1986), reported on the 106 schools that were classified as low-income-serving schools, because more than 10 percent of their students were from families with estimated⁵ incomes below \$10,000. This phase of the study had four purposes: (1) to compare organizational factors (resources, programs, facilities, and climate) in schools serving a higher percentage of low-income students with those serving more economically-advantaged students, and to determine whether the location of the school (urban, suburban, rural) affected these factors; (2) to describe the family background, attitudes, values, and beliefs of low-income students, and to determine the degree to which these characteristics vary as a function of family income, race, grade, and sex; (3) to describe the characteristics of teachers who work in schools with a high percentage of low-income students; and (4) to compare the gains of low-income students with other students, and to identify the most important predictors of these gains from among family background, student characteristics, and institutional variables.

The authors used four sources of data to accomplish their purposes. The data from the principals of low-income-serving schools collected during the first phase of the study in 1983 served to describe these schools and their characteristics. In addition, over 7500 freshmen and seniors in the 106 schools completed a two-part survey. Part I contained achievement tests in vocabulary, reading, and mathematics that were developed for *High School and Beyond*. Part II was a 358-item self-report inventory concerning personal background, attitudes and values, and opinions concerning various aspects of the school. Also, over 900 teachers provided data on their personal backgrounds, school characteristics, teaching attitudes and practices, and school needs and achievement. Finally, a team of researchers⁶ from The Catholic University of America collected extensive field data from five of these schools. The authors presented their findings by comparing low-income-serving schools to other Catholic high schools, and by comparing very poor students, defined as those from families with incomes less than \$12,500, with other students.

What were the characteristics of low-income-serving schools? These schools were more likely to be boys' schools and coed schools, rather than girls' schools, and diocesan and parochial schools, rather than private schools. Low-income-serving schools, especially those located in urban areas, enrolled large numbers of minority students, many of whom were not Catholic.⁷ Low-income-serving schools had a higher proportion of women religious and priests on staff than did other schools. In terms of school climate, low-income-serving schools did not differ from other Catholic high schools on the dimensions of faith community and morale, and were only slightly lower on academic emphasis and discipline. Teachers reported that their strongest motivations for teaching in low-income-serving schools were their attraction to work in that environment, view of teaching as a ministry, and love of teaching. The job satisfaction among teachers in these schools was high, although most said they did not earn a decent salary. About half of the teachers thought it was not more difficult to teach low-income students and nearly all thought their schools did well in dealing with these students.

How well do Catholic schools serve low-income students? Apparently, very well. Benson and his associates concluded that low-income-serving schools were very similar to other Catholic schools in their graduation requirements, school climate, teacher characteristics, and financial resources. Low-income students in Catholic schools generally enjoyed equal access to educational resources, when compared with other students, except for some offerings in science and mathematics, and certain co-curricular activities, such as tennis, swimming, soccer, golf, and debate. Regarding educational outcomes, Benson and his associates concluded that these schools appeared to be as effective for very poor students as they were for other students, except possibly in mathematics. The evidence for effectiveness the authors used was the gain between the 9th and 12th grade.

However, since the data were cross-sectional rather than longitudinal, the results of these analyses had limited utility. A proper interpretation of the findings depended upon satisfying the assumption that, on average, the performance three years earlier of the seniors in the study when they were freshmen was the same as the performance of the freshmen in the study. If that assumption is tenable, Benson's analysis revealed the importance of the schools' academic programs on the gain in test performance from the freshman to the senior year, after controlling for the characteristics of the student body.

A second set of analyses required fewer assumptions than the gain score analysis, since the authors used students as the units of analysis and analyzed only the test performance of seniors. The characteristics of individual students, their educational aspirations, perceived school ability, and time spent on homework proved to have strong influences on their 12th-grade performance.

Teachers' Beliefs and Values

In 1985, NCEA and Search Institute published a major study concerning the beliefs and values of Catholic high school teachers (Benson & Guerra, 1985). The data for the study came from 1062 full-time teachers from 45 Catholic high schools around the country who completed a 260-item questionnaire concerning their personal backgrounds, religious beliefs and practices, values, social and political attitudes, and perspectives on religious education. Originally, Benson and Guerra had invited 80 Catholic high schools, selected according to a stratified random sample by region and school size, to participate in the study. Concerned about the potential bias to the findings by the 44 percent nonresponse, Benson and Guerra compared the 45 schools that did participate with the national population of teachers, as documented in *The Catholic High School: A National Portrait*, and found that, on the whole, the two groups of teachers were quite similar, with non-Catholic teachers, women religious, and female teachers slightly overrepresented in the sample that responded to the survey.

The emphasis in this study was on lay teachers and how they compared with teachers from religious communities on a variety of beliefs, attitudes, and values concerning the religious and spiritual aspect of Catholic schools. In general, most teachers reported teaching in these schools because of the religious and educational environment. The teachers generally accepted responsibility to promote the religious and value aims of the school, many engaged in some religious formation activities, and most affirmed the basic doctrinal tenets of the Catholic faith.

Lay teachers, however, tended to define their role in religious formation somewhat narrowly, placing emphasis on nurturing compassion and tolerance. They were much less likely than religious teachers to be involved in evangelization or catechetical teaching. The commitment of lay teachers on a general index of religious commitment was higher than the commitment of American Catholics; however, the lay teachers were not as committed or as active in the institutional church as were teachers from religious communities.

Benson and Guerra were not surprised, nor should they have been, by the finding that lay teachers had somewhat lower levels of engagement with the church, compared with priests, brothers, and sisters who had dedicated their lives to church ministries. However, the authors stressed that Catholic lay teachers should be expected to contribute to building the faith community in the school by their example and teaching.

Benson and Guerra concluded their study by arguing that the presence of religious in administra-

tive positions and on the faculty continued to be a strong force in establishing the religious environment of many schools. They also argued that the small differences that existed between religious teachers and lay teachers on the study's indexes of Catholic doctrine, Catholic moral values, and commitment to a specifically Catholic form of religious formation were due to the influence of this religious environment. Perhaps Benson and Guerra were correct; however, the very reasons that many lay teachers choose to teach in a Catholic school — ministry, commitment to Catholic education, desire to participate in the spiritual development of the students — indicate that the commitment of lay teachers already is high, and differences between lay and religious teachers are nothing more than a matter of degree.

Mixed Messages

In *Mixed Messages* (O'Brien, 1987), Rev. J. Stephen O'Brien, then Executive Director of CACE, surveyed bishops and priests nationwide concerning their perceptions of the value, effectiveness, funding practices, and future structure of Catholic schools. O'Brien wanted to determine whether Greeley, McCready, and McCort's (1976) finding that some pastors and future pastors were not supportive of Catholic schools was still true a decade later. In particular, O'Brien wanted to know what value bishops and priests placed on Catholic schools as a work of the church, and how they viewed the: (1) effectiveness of the schools; (2) present methods of financing the schools; (3) concept of regionalization and centralization of schools; and (4) increased parental involvement in decision-making about the future of the schools. To accomplish his objectives, O'Brien adapted a questionnaire used by Sullivan (1982) in the Archdiocese of Boston and sent it to the 273 active bishops in the United States and to a sample of 660 priests selected systematically from a mailing list generated randomly by the publishers of *The Official Catholic Directory*. Just over 80 percent of the bishops (219) and slightly more than half of the priests (346) returned a completed survey.

Priests and bishops were very strong in their affirmation of the value of Catholic schools. Virtually all bishops (93 percent) and a large majority of priests (72 percent) agreed that the need for Catholic schools was at least as great today as in the past. However, to all statements concerning the various dimensions of the value of Catholic schools — their need, their role in the mission of the church, their preparation of students for roles in the church and society — the agreement of priests, while never less than 69.2 percent to any statement, was less than the agreement of the bishops. Furthermore, the priests' assessment of the value of Catholic schools varied somewhat according to the number of years they had been ordained and whether or not they themselves had attended Catholic elementary or secondary schools. Priests ordained from 11 to 20 years and those who did not attend Catholic schools reported lower agreement to many statements.

Both priests and bishops rated the quality of Catholic schools high, but the ratings of the priests varied by the location of their ministry, with the weakest agreement (75.9 percent) from priests in inner-city parishes and the highest agreement (96.4 percent) from priests in urban parishes. On the other hand, in rating whether Catholic elementary schools were academically better than public schools, priests from urban (84.3 percent) and inner-city (92.5 percent) parishes were stronger in their agreement than were priests in suburban (70.9 percent) and rural (76.4 percent) parishes.

Bishops and priests had high ratings for the influence of Catholic schools on the adult religious behaviors of their graduates. However, bishops (79.9 percent) more than priests (50.5 percent) thought that Catholic secondary schools formed convinced, articulate Catholics. In addition, bishops (20.7 percent) were less likely than were priests (46.7 percent) to agree that Catholics who

attended public schools turn out to be as "good" Catholics as those who attended Catholic schools.

Regarding funding practices, almost all bishops (91.7 percent) and most priests (66.2 percent) thought that supporting Catholic schools was an effective way to use the church's financial resources; however, the majority of bishops and priests agreed that Catholic schools used a disproportionate amount of parish revenues for the number of parishioners served. The bishops (95.9 percent) were strong in their agreement that the financial support of Catholic schools was the duty of all Catholics; almost 80 percent of the priests also agreed.

Finally, with regard to future structures, bishops and priests strongly supported the regionalization of schools; that is, the sponsorship of one school by several parishes. However, bishops were less supportive than were priests concerning the regional operation of schools; that is, establishing a governance structure that removes a school from the direct association with its sponsoring parish or parishes. Bishops, more than priests, supported the establishment of schools in suburbs where needed. Some unwillingness existed, especially among priests, to allow parents to have more control over school policy. Most of the respondents did not feel that improved CCD programs should eventually replace Catholic schools.

O'Brien's research was limited somewhat by the nonresponse of almost half of the priests surveyed and by the nature of some of the statements on his questionnaire. Follow-up data obtained from 45 priests who did not originally respond to his survey showed that at least these initial nonrespondents did not differ significantly in their views from the priests who had responded to the first questionnaire. Of course, the sentiments of the other nonrespondents cannot be estimated. With regard to the questionnaire itself, as Thompson (1988) noted, the utility of some of O'Brien's results was compromised because: (1) some statements on the questionnaire were rhetorical and begged a particular, usually favorable, response; (2) some terms were undefined, for example, "good Catholic"; and (3) the forced-choice format of "agree-disagree" prevented a nuanced reply, which many of the respondents may have given to open-ended questions. Despite these limitations, some of which are common to any study that relies primarily on survey data, O'Brien's work remains an important contribution because of the sources of the data collected and the timely issues examined.

The Heart of the Matter

The Heart of the Matter: Effects of Catholic High Schools on Student Values, Beliefs and Behaviors (Guerra, Donahue, and Benson, 1990) examined whether Catholic seniors in Catholic high schools differed in their values and beliefs from Catholic seniors in public high schools. Michael Guerra, the Executive Director of the Secondary Department of NCEA, and Michael Donahue and Peter Benson, both of Search Institute, analyzed data from Catholic students that the respected Survey Research Center of the Institute for Social Research at the University of Michigan had collected between 1976 and 1985 as part of the Monitoring the Future Project. The authors aggregated the annual data into three time periods (1976-1978, 1979-1982, and 1983-1985) and compared Catholic seniors from Catholic high schools with Catholic seniors from public high schools on personal and family background variables and on a series of 31 outcome variables. These variables were organized into six domains: social values, educational values, concern for people, at-risk behaviors, perceptions of self, and faith and church.

Guerra and his colleagues used the data between 1983 and 1985 to develop a profile of the students. Catholic seniors in Catholic schools were more likely than were Catholic seniors in public schools

to live with both parents and in larger population areas, and to have parents with higher levels of education and mothers who did not work while the students were growing up. In addition, Catholic school seniors, on average, did not work as many hours for pay and were not out as much in the evenings during the school year for "fun and recreation."

The Catholic school seniors differed from the public school seniors on 16 of the 31 outcome variables, mainly on items regarding concern for others, faith and church, and at-risk behaviors. Catholics in Catholic schools, compared with Catholics in public schools, reported that they participated more in community affairs and did more volunteer work; they were more likely to contribute to charity and the church; and they were less self-centered and more concerned about others. Catholic school seniors also indicated they attended religious services more often and viewed religion as more important in their own lives than did seniors in public schools.

Almost two-thirds of the public school seniors and 62 percent of the Catholic school seniors indicated that, at least once in their lifetimes, they had used an illicit drug, which would include alcohol. Catholics in Catholic schools reported a greater use of alcohol than did Catholics in public schools.⁸ In general, however, Catholic school seniors reported engaging in fewer at-risk behaviors, in particular smoking cigarettes and using cocaine, than did public school seniors.⁹

On other outcomes, Catholic school seniors were more likely than were public school seniors to affirm pro-marriage attitudes and to have college aspirations, and less likely to support militarism as a policy, to cut classes, and to express pessimistic attitudes.

Catholic students from both types of schools reported accepting persons of other races and supporting equal opportunity for men and women. They perceived they had control over their lives, had high self-esteem, and reported they were fairly happy and tended not to be lonely. All students felt strongly that it was important that their careers offer opportunities to be directly helpful to others; however, they were somewhat less supportive of the importance of making a contribution to society and far less supportive of the importance of working to correct social and economic inequality.

Guerra and his associates also examined the changes in attitudes and behaviors of the students over the entire 10-year period. Thirteen of the 31 outcome variables showed no significant changes. The following outcomes had generally increased from 1976 to 1985: support for equal opportunity, college aspirations, self-esteem and sense of personal control, attitudes toward marriage, and the use of cocaine. The importance of religion increased for Catholic students in Catholic high schools, but had an erratic pattern for Catholic students in public high schools. The outcomes that had decreased were militarism, cutting school, use of marijuana and cigarettes, and feelings of loneliness.

In their final analyses, the authors attempted to identify the variables that were the most important indicators of the outcome variables. Four variables consistently emerged as important predictors¹⁰ of outcomes: importance of religion, nights out, gender, and school type. "Importance of religion" significantly predicted all of the concern for people and the faith and church outcomes, as well as attitudes toward school and pro-marriage sentiments. "Nights out" was important in determining at-risk behaviors and was associated with cutting school, lower pro-school attitudes, lower college aspirations, and less concern for others.

When the other predictors were controlled, females were higher than males in their support for

equal opportunity, tolerance of other races, concern for others, desire that their career be of service to others, and the importance they attached to religion. Females were lower than males on measures of delinquency, risk-taking, binge drinking, and militarism; however, females reported more use of cigarettes than males.

Finally, again controlling for the other predictors, attendance at a Catholic school was a significant predictor of the importance of religion and church attendance, three of the measures of concern for others, higher college aspirations, pro-marriage sentiments, lower rates of cutting school, and lower militarism. The authors concluded that their data suggested that when non-academic school effects were found, they favored Catholic schools.

The Heart of the Matter was an important study because of its emphasis on the non-academic outcomes of Catholic schools, reliance on a national database, and incorporation of statistical controls for potentially confounding background variables.

SUMMARY

1. The major studies on Catholic schools between 1965 and 1990 focused on a variety of religious, academic, social, and personal outcomes of Catholic schools. The early studies, those prior to 1978, concentrated mostly on the religious outcomes of Catholic schools. *Catholic Schools in Action* helped Catholic educators to understand more about students' religious understanding, attitudes, and opinions. The studies by Greeley and his colleagues produced convincing evidence concerning the beneficial effects of Catholic schools on the religious attitudes and practices of their graduates.
2. The studies after 1978 concerned the academic, social, and personal outcomes of Catholic schools, as well as their organizational effectiveness, more so than their religious outcomes. The few studies that did examine values and religious outcomes, particularly *The Heart of the Matter*, continued to find that Catholic students in Catholic schools fared better than did Catholic students who attended other schools. The Catholic-school effects appeared to be not totally due to selection factors or out-of-school experiences.
3. The most convincing results of these later studies concerned academic outcomes and organizational effectiveness. The studies by Coleman and his colleagues, as well as those of other researchers who used the data from *High School and Beyond*, showed that Catholic schools had better academic outcomes, more effective discipline, a more structured curriculum, a greater sense of collegiality among faculty, and a higher sense of community than did public schools. Moreover, Catholic schools were particularly effective for students from disadvantaged backgrounds.
4. Several studies documented the contribution of Catholic schools to the students of the inner city, particularly minority students. Offsetting the data concerning the special problems of inner-city schools, such as declining enrollments, difficulties experienced by parishes in financially supporting the schools, and older facilities were many positive findings, including the egalitarian nature of the schools, their strong communities, their high expectations, and their ability to produce higher quality results than the public schools in their areas. These studies also showed the children in inner-city Catholic schools typically had responsive parents who sought sound educational placements for their children and the reinforcement of the values they stressed at home.

5. NCEA studies described the condition of Catholic high schools, the beliefs and values of Catholic high school teachers, and the support of Catholic schools by bishops and priests. *The Catholic High School: A National Portrait* and the study on low-income-serving Catholic high schools established a comprehensive database for Catholic high schools. Catholic schools attracted lay teachers because of the schools' religious mission and the teachers' commitment to Catholic education. Many teachers considered teaching as ministry and desired to participate in the spiritual development of their students. Finally, priests and bishops strongly affirmed the value of Catholic schools and rated their quality as high. The support of priests for Catholic schools varied according to the location of the parish, the number of years they were ordained, and whether they themselves had attended a Catholic school.

DEMOGRAPHY

This chapter describes the sweeping demographic changes that occurred in Catholic schools from 1965 to 1990. After a brief description of the history of Catholic schools in the United States and their growth to 1965, separate sections contain an analysis of the trend from 1965 to 1990 in the number of schools, their overall enrollments, and the enrollments of minority students and non-Catholics. The chapter concludes with a discussion of: (1) the income of families with children in Catholic schools; (2) the level of education of parents who enrolled their children in Catholic schools, including how much of their own education was in Catholic schools; and (3) the flow of students from Catholic elementary schools to Catholic high schools.

Most of the data reported in this chapter were obtained from reports based on the NCEA Data Bank and from reports issued by the National Center for Education Statistics of the United States Department of Education.¹ Some data not routinely collected by NCEA or the federal government were obtained from selected research studies published between 1965 and 1990.

BACKGROUND

Catholic schools have a long tradition in the United States. In 1727, the Ursuline Sisters established the first Catholic school in New Orleans (Buetow, 1970). But the beginning of the 19th century recorded a significant event in the history of Catholic schools when Elizabeth Ann Seton began a school in Emmitsburg, Md., in 1808 for the purpose of educating the daughters of Catholic families. Historians generally acknowledge (Buetow, 1970; Gleason, 1985) this establishment as the birth of the Catholic school system. Soon after, Catholic immigrants from Europe built a large number of schools to educate their children in the Catholic faith and to prepare them for life in their new country.

By the middle of the 19th century, Catholic schools were growing in record numbers. At the same time, the rise of formal education and the common school in the United States presented challenges to the Catholics of the country. With few exceptions, public education was thoroughly Protestant and overtly anti-Catholic, and neither Catholics nor their schools were well received (Gleason, 1985; Lazerson, 1977).

As the historian Philip Gleason indicated in his address at the 1984 centennial celebration of the Third Plenary Council of Baltimore, religion was not the only factor in the school-related controversies between Protestants and Catholics, but it was the most basic. The public schools had intimate links with the evangelical Protestantism that permeated American culture, and they strongly reflected a pan-Protestant mentality. The American bishops of the late 19th century looked upon the public schools as proselytizing agencies and, thus, a proximate danger to the faith of Catholic children (Gleason, 1985, pp. 281-282).

The concerns of the bishops dominated the discussions about Catholic schools during the Third Plenary Council of Baltimore in 1884. The bishops at the Council made Catholic schools a priority, calling for their establishment and support. The Council required the establishment within two years of a parochial school near each church where a school did not already exist and mandated the attendance of Catholic children at these schools.

But the Council did more than simply mandate the establishment of Catholic schools and the attendance of Catholic children. The bishops were concerned about the quality of both the religious education program and the academic program of the schools. The Council directed that these schools should be second to none in quality. To help accomplish this, the Council decreed that priests were to receive seminary training in pedagogy and psychology and were to watch closely over their schools, teaching religion classes themselves, if possible. The bishops asked the laity to be actively involved in the work of the parochial schools. In addition, the bishops encouraged the establishment of normal schools to train prospective teachers² and asked for the development of standards for teacher certification to raise the quality of education in Catholic schools (Dolan, 1985).

The growth of Catholic schools accelerated during the years after the Council because of the great number of Catholic immigrants who came to this country between 1875 and 1920, the large Catholic families that resulted, the adherence to the dictum of the Council that all children should be educated in Catholic schools, and the extraordinary baby boom that followed World War II. At the time of the Council, approximately 500,000 students in the United States attended 2500 parochial schools (Gleason, 1985, p. 298). About 5000 new schools were established between 1880 and 1920 to accommodate a burgeoning Catholic population, which increased from 6 million to 19 million (Cooper, 1988, p. 20). By 1920, almost 2 million students were enrolled in about 6500 elementary schools and 1500 secondary schools (Brigham, 1989, p. 24). The number of schools continued to increase as the Catholic population of the country grew. Often a new parish built the school first and a church later. As a result of the post-World War II baby boom, the enrollment of Catholic elementary schools grew by more than 2 million students between 1950 and 1960. By the 1964-65 school year, the enrollment of Catholic schools peaked³ at just over 5.6 million students in 13,249 schools (Brigham, 1989).

SCHOOLS

The 1965-66 school year saw the largest number of Catholic schools at any time in the nation's history, when 13,292 Catholic schools enrolled approximately 5,574,000 students (see Table 3-1). The 10,879 elementary schools in operation that year represented an all-time high, while the 2413 secondary schools were about 100 fewer than the 2502 high schools in 1962.

The decline⁴ in the number of Catholic schools in the nine years following their peak number in 1965 was cataclysmic. In the 35 years from 1930 to 1965, the number of Catholic schools had increased from just over 10,000 to the historic high of 13,292 (Brigham, 1989). By 1974, only nine years later, a record number of school closings, more than 2400 elementary schools and over 700 secondary schools, had virtually neutralized this 35-year increase. The number of Catholic schools remaining in 1974 was just slightly higher than the number of Catholic schools in 1930.

School closings continued steadily from 1974 to 1989; however, the rate of closings slowed considerably, compared with the period from 1965 to 1974. The decline of 1408 schools in the

15 years between 1974 and 1989 was less than half the decline in the earlier nine-year period. While more elementary schools than secondary schools closed from 1965 to 1989, the rate of closings was higher for secondary schools than for elementary schools. By 1989, approximately 32 percent fewer elementary schools and 45 percent fewer secondary schools were in operation than were in 1965.

The decline in the number of Catholic schools was accompanied by changes in the relative proportion of parish, interparish, diocesan, and private schools (see Table 3-2). In the late 1960's and early 1970's, over 90 percent of the elementary schools in the nation were parish schools. Of the remaining schools, just less than 5 percent were interparish, about 1 percent were diocesan, and just less than 4 percent were private. By 1989, the relative proportion of interparish and diocesan elementary schools had increased to approximately 9 percent and 2 percent, respectively, while the relative proportion of parish schools had dropped to about 86 percent.⁵

Historically, a large number of Catholic secondary schools in the country were privately owned and operated, mostly by religious congregations (Buetow, 1970). In 1968, almost two of every five Catholic secondary schools in the country were privately-owned, about one of four was either a parish high school or a diocesan high school, and about one of 10 was an interparish high school (see Table 3-2). The relative proportion of privately-owned secondary schools did not change appreciably from 1968 to 1989; however, the relative proportion of diocesan high schools increased by about 50 percent and the relative proportion of parish high schools decreased by about 50 percent. By 1989, approximately one of every three high schools was diocesan and only about one of every eight was a parish school. The decline in the number of parish high schools was often due to financial and demographic factors.

ENROLLMENT

From 1965 to 1990, the number of Catholic school students in the United States also declined significantly (see Table 3-3). In the 1989-1990 school year, Catholic schools enrolled just under 2.5 million students in grades kindergarten through 12, a 55 percent decrease from 1965 or about 3 million fewer students. During this time, the enrollment of elementary schools declined by just over 2.6 million students (58 percent) and the enrollment of secondary schools declined by about 460,000 students (43 percent). Catholic schools, which enrolled 12.5 percent of the nation's children in 1960, enrolled less than 6 percent by 1988 (see Table 3-4).

Demographic factors were major contributors to the decline in the enrollment of Catholic schools. A declining birth rate since 1960 (Table 3-5) had a dramatic impact on the enrollments of public⁶ and Catholic schools all over the country. For example, the public and private schools in the country together enrolled more than 7.5 million fewer students in 1988 than in 1970 (Table 3-4). This drop in the combined enrollment of public and private schools resulted from over 1 million fewer children being born in 1975 than in 1960, a 26 percent decline in the number of births. The steepest declines in the number of births took place between 1960 and 1965, as the post-World War II baby boom ended, and between 1970 and 1975, because of many factors, including societal pressure to achieve zero population growth and the increase in the number of abortions in the United States. In the mid- to late 1970's, the number of births began to increase again, with the number of children born in 1985 reaching the levels of the mid-1960's (see Table 3-5).⁷ The number of births is anticipated to continue to increase slightly into the early 1990's and begin to decrease again after about 1995.

Another demographic factor that affected the enrollment of Catholic schools was the migration of the Catholic population from areas that had a large number of Catholic schools to areas that often had few or no Catholic schools. The most common migration was from parishes in urban areas to suburban parishes, not all of which had parochial schools. Greeley (1977, 1989) has consistently lamented that some of the decline in the enrollment of Catholic schools resulted from decisions on the part of dioceses not to build schools. For example, no parish schools were built in the Archdiocese of Washington after 1966, despite a massive movement of Catholics into parts of the archdiocese that had few or no schools (Convey, 1986b). A less common, but still significant, migration was the movement of Catholics from the New England, Middle Atlantic, and Great Lakes states, which had a large number^a of Catholic schools, to the Southeastern and Western parts of the country, which had fewer Catholic schools.

While the enrollment of Catholic schools had declined sharply, the enrollments of other private schools, especially those with some religious affiliation, had steadily increased since 1965 (Cooper, McLaughlin, & Manno, 1983). Baptist, Evangelical Christian, and Lutheran schools especially experienced significant growth in the number of students (Cooper, 1984). By the 1987 school year, Baptist schools enrolled over 335,000 students, Lutheran schools over 247,000, and Christian schools over 233,000 (McMillen & Gerald, 1990). In addition, independent private schools and those serving special education students also grew considerably (Williams, 1986). At one time, Catholic schools enrolled most of the students in the nation who attended private schools; however, the percentage of all private school students who attended Catholic schools consistently eroded from 1965 to 1990. In 1965, Catholic schools enrolled about 87 percent of all private school students; this percentage dropped to about 68 percent by 1975 and to about 49 percent by 1988 (Table 3-4).

MARKET SHARE

Table 3-6 shows the estimates from various studies of the percentage of all Catholic children who attended Catholic schools. As is evident from Table 3-6, the percentage of the Catholic school-age population attending Catholic schools decreased substantially between 1962 and 1987. In 1962, an estimated 52 percent of all Catholic elementary-school-age children attended a Catholic school (Neuwien, 1966); this market-share estimate fell by almost one-half to 27 percent by 1987 (Harris, 1989). The decline for Catholic high schools in the market share of the Catholic high-school-age population between 1962 and 1987 was almost as abrupt as that for Catholic elementary schools. In 1962, Catholic high schools enrolled an estimated 32 percent of the Catholic high-school-age population (Neuwien, 1966); by 1987 less than 20 percent of Catholic high-school-age children were in Catholic schools (Harris, 1989).

The percentage of Catholic school-age children enrolled in Catholic schools is difficult to determine because of the problems in estimating the number of Catholic children of school age. *Catholic Schools in Action* (Neuwien, 1966) and the study by Thompson and Hemrick (1982) used baptismal records to estimate the number of Catholic children. These estimates assume that the records are accurate and that the death rate for Catholic children is the same as that for all children in the population.

Greeley and his colleagues obtained their estimates of the percentage of the Catholic school-age population who attended Catholic schools from their probability samples of Catholic adults. Estimates from the studies conducted by Greeley^a and his associates (Greeley & Rossi, 1966;

Greeley et al., 1976) indicated that in the 10 years from 1964 to 1974, the percentage of Catholic families (when both parents were Catholic), who enrolled their children in Catholic schools had declined from 44 percent to 29 percent.¹⁰

Because its data resulted from a national probability sample of all high school sophomores and seniors, *High School and Beyond* provided an excellent opportunity to estimate the percentage of Catholic children who attended Catholic schools. According to *High School and Beyond*, approximately 34 percent of the high-school-age children in the United States in 1980 were Catholic (Coleman et al., 1982). Almost 81 percent of Catholic children attended public high schools, 17.5 percent attended Catholic high schools, and 1.7 percent attended private high schools. Furthermore, estimates from *High School and Beyond* indicated that, in 1980, Catholics comprised 90.9 percent of the students in Catholic high schools, 30.7 percent of public high school students, and 17.4 percent of the students in other private high schools.

In a special report to NCEA, Joseph Harris (1989) conducted perhaps the most comprehensive analysis of the Catholic school market share of the Catholic population. Harris provided detailed estimates of the changes in the share of the market for Catholic students from 1979 to 1987. He estimated the size of the Catholic population from the 1984 Gallup survey on religious preferences and the 1984 count of Catholics reported in the *Official Catholic Directory*, published by P. J. Kenedy & Sons.¹¹ Harris assumed that the Catholic population had the same proportion of elementary and secondary school children as the general population, an assumption that was likely to produce a conservative estimate of the size of the Catholic school-age population and hence an overestimate of the resulting market share.

Harris' analyses graphically demonstrated the effects of the decline in the number of births and the migration of the Catholic population on Catholic school enrollments. As Table 3-7 indicates, the school-age Catholic population in the United States between 1979 and 1987 declined by 5 percent for elementary school children¹² in grades 1 to 8 and by 12 percent for secondary school children. During the same period, the number of Catholic children enrolled in grades 1 to 8 of Catholic elementary schools declined by 20 percent and the number enrolled in Catholic secondary schools declined by 22 percent. The greater decline in the enrollment of Catholics in Catholic schools, compared with the decline in the overall population of Catholic children, indicated that Catholic schools were attracting a smaller market share of the Catholic population in 1987 than in 1979.

The market-share analysis conducted by Harris (1989) revealed that Catholic elementary schools enrolled a higher percentage of the Catholic population than did Catholic secondary schools. Moreover, the decline in the market share was greater for elementary schools than for secondary schools. In the eight years from 1979 to 1987, the percentage of Catholic children enrolled by Catholic elementary schools declined from 33 percent to 27 percent and the percentage enrolled by Catholic secondary schools declined from 22 percent to 19 percent (see Table 3-7).

Important regional¹³ differences existed in the proportion of Catholic children in Catholic schools. First, Catholic schools in the New England and the West/Far West regions had a considerably lower proportion of elementary-school-age and secondary-school-age Catholics than did Catholic schools in the other regions of the country. By 1987, the schools in the New England and West/Far West regions enrolled fewer than 20 percent of the Catholic children in these regions, whereas schools in the other regions enrolled between 30 percent and 39 percent of the Catholic elementary-school-age children and between 22 percent and 25 percent of the Catholic secondary-

school-age children. Second, the largest declines in the proportion of Catholic children enrolled in Catholic elementary schools occurred in the Mideast and Southeast regions, and the largest declines for Catholic secondary schools occurred in the Mideast and Plains regions. The schools in these areas experienced larger losses in the share of the Catholic market, despite having smaller relative declines in the population of Catholic children. Third, although the number of Catholic children in the West/Far West region increased, the schools in this region also saw a diminishing share of the Catholic market.

The market-share analyses by Harris revealed that declining birth rates and shifting populations, while playing major roles in the decline of the enrollment of Catholic schools, were not sufficient explanations for the decline. Other important factors unrelated to demographics also were at work. First, as the 20th century progressed, public education became increasingly more acceptable to Catholics. No longer was public education overtly anti-Catholic and thoroughly Protestant in nature. At the same time, post-World War I nationalism caused Catholic education to become more like public education, thoroughly American and professional. Also, because of changes in its educational and class status, the Catholic population had gradually changed from an immigrant group, which thought of itself primarily as Catholic and only secondarily as American, to mainstream American who also happened to be Catholic. As several authors (Donovan & Madaus, 1985; Greeley et al., 1976) have noted, American Catholics became Catholic Americans. This significant change in identity helped to make the preeminent American institution, the public school, more acceptable to Catholics.

Second, the cultural and religious transformations that occurred during the 1960's also had a profound impact on Catholic schools. Catholic schools, especially the parish elementary schools, came under more frequent and vocal attacks from within the Catholic community during the post-Vatican II era (Myers, 1974). Some questioned the contribution that Catholic schools made to the intellectual life¹⁴ of the church (Dolan, 1985; Fay, 1975). Others questioned the value and the priority of the church's investment in parochial schools. Still others, like Mary Perkins Ryan (1964), questioned the necessity and desirability of Catholic schools. Ironically, the relevancy of the schools, which had served an immigrant church so well, was questioned most often by those who had been the direct beneficiaries of the schools, the children and grandchildren of the immigrants.

Third, during the 1960's and 1970's, religious instruction became more modern and accommodating. The religious dimension, which set Catholic schools apart from public schools, was not clearly present in all Catholic schools (Cooper, 1988). Men and women from religious communities left the teaching profession for other, more socially active ministries, and many left religious life altogether. Some parents became dissatisfied with the religious programs of Catholic schools (Myers, 1974). Many parents questioned the value and the whole *raison d'être* of Catholic schools.

Fourth, rising operating expenses due to increasing teacher salaries and other costs driven higher by spiraling inflation contributed to the crisis in Catholic education. The large increases in enrollment in the 1950's required hiring additional teachers, many of whom were lay men and women.¹⁵ The decline in the number of religious teaching in the schools during the 1960's and 1970's necessitated hiring more and more lay teachers. In 1950, 7 percent of teachers in parochial elementary schools and 17 percent in Catholic secondary schools were lay teachers. In 1960, the percentages were 27 percent and 25 percent, respectively. By 1970, more than half of the teachers in both elementary and secondary schools were lay teachers. Lay teachers comprised almost 75 percent of the teachers in Catholic schools in 1980 and almost 84 percent in 1988 (Brigham, 1989,

p. 24). The payment of higher salaries to these lay teachers, coupled with the high inflation of the 1970's, precipitated a financial crisis that resulted in higher tuition for Catholic schools. The higher tuition, in turn, significantly affected the enrollment of the schools. The financial crisis was exacerbated in many cities by the movement of large numbers of middle-class Catholics to the suburbs, thus decreasing the ability of inner-city parishes to support their schools to the same degree as they had in the past. The result was that many inner-city schools began to charge higher tuition than schools located in more affluent parishes in the suburbs.

NON-CATHOLIC ENROLLMENT

Catholic schools became more appealing and accessible to non-Catholics in the 1970's and 1980's, resulting in a sharp increase in the enrollment of non-Catholic students. Non-Catholics undoubtedly were drawn to Catholic schools because of the schools' reputation for academic excellence, emphasis on values, and good discipline. Indeed, part of the appeal of Catholic schools to non-Catholics was precisely the schools' increasing accessibility that resulted from declining enrollments. In 1969, approximately 120,000 non-Catholic students attended Catholic elementary and secondary schools in the United States (Bredeweg, 1985). As the total enrollments of these schools steadily declined, more and more non-Catholics enrolled in Catholic schools. In 1982, Catholic schools enrolled approximately 321,000 non-Catholic students, an increase of over 200,000 students in 13 years. After peaking in 1982, the non-Catholic enrollment decreased slightly to just over 301,000 students in 1989, a decline of almost 20,000 students or 6 percent since 1982. This decline, however, was far less than the 17 percent decline in the total enrollment of Catholic schools during that same period.

The increase in the number of non-Catholic students and the overall decline in the total enrollment of Catholic schools since 1969 added to the likelihood that a student in a Catholic school was not Catholic. The percentage of non-Catholics rose between 1969 to 1989 from 2.8 percent to 11.3 percent for Catholic elementary schools and from 2.6 percent to 14.3 percent for Catholic secondary schools (Bredeweg, 1985; Brigham, 1990). Despite the decline in the actual numbers of non-Catholics in Catholic schools between 1982 and 1989, the percentage of non-Catholics continued to increase, because the decline in the enrollment of non-Catholics during this period was smaller than the overall decline in the total enrollment of Catholic schools.

Non-Catholic enrollments varied in different parts of the country (see Table 3-8). Because they enrolled over half of all Catholic school students,¹⁶ the schools in the Mideast and Great Lakes regions also tended to have the largest number of non-Catholic students. In 1989, the schools in these regions enrolled over 165,000 non-Catholic students, about 55 percent of the non-Catholic students enrolled in Catholic schools.

The schools in the Southeast and West/Far West regions enrolled about 35 percent of the non-Catholic students in Catholic schools in 1989. The schools in these regions, however, were more likely to enroll a non-Catholic student than were the schools in the other regions of the country. In 1989, 16.2 percent of the students in the Southeast region and 14.1 percent of those in the West/Far West region were not Catholic, compared with 12 percent nationally (see Table 3-8). On the other hand, schools in the New England and Plains regions enrolled the fewest number of non-Catholic students and, particularly those in the Plains region, also were the least likely to enroll a non-Catholic student. In 1989, approximately 10 percent of the non-Catholic students in Catholic schools attended the schools in these regions. About 5 percent of the students in the

Plains region schools and 9.9 percent of the students in the New England region schools were not Catholic, compared with 12 percent nationally. The enrollment of non-Catholics in Catholic schools declined from 1982 to 1989 in most regions except the New England and Mideast, where it rose slightly. In addition, secondary schools in the Plains region experienced a slight increase in non-Catholic enrollment over the same period. As a result of the slight increases in enrollment of non-Catholic students and a decline in overall enrollment, the New England and Mideast regions experienced a sharp increase in the likelihood that a student enrolled in a Catholic school was not a Catholic.

Non-Catholic enrollments also occurred with more frequency in certain types of Catholic schools. Data from *The Catholic High School: A National Portrait* (Yeager et al., 1985) indicated that the percentage of non-Catholics in private high schools (14 percent) was somewhat higher than in diocesan (12 percent), parochial (11 percent), and interparochial (7 percent) high schools. In addition, the proportion of non-Catholics varied inversely with the size of the high school, with schools smaller than 500 having, on average, 14 percent non-Catholics and schools greater than 500 having, on average, at most 12 percent non-Catholics. Finally, the likelihood that a student in an all-girls' Catholic high school was not Catholic (14 percent) was slightly higher than the likelihood in an all-boys' (13 percent) or coed (12 percent) high school.

A major factor contributing to the increased percentage of non-Catholics in Catholic schools was the enrollment of large numbers of minority students, many of whom were not Catholic. However, Catholic schools also experienced large increases in the numbers of non-Catholics who were not from minority populations. During the 1983-84 school year, about 55 percent of all non-Catholic students in Catholic schools were from minority populations. Most of these students, 87 percent or about 163,000, were black. During the same school year, Catholic schools enrolled almost 154,000 non-Catholics who were not from minority populations. The non-Catholic percentage of the different racial/ethnic groups in Catholic schools during the 1983 school year was typical of the 1980's, in that approximately two-thirds of the black students (64 percent) and about one-fourth of the Asian (24 percent) and American Indian (22 percent) students were not Catholic, whereas only approximately 3 percent of Hispanic students and 6.5 percent of other students were not Catholic (Bredeweg, 1985; Brigham, 1989).¹⁷

MINORITY ENROLLMENT

Catholic schools traditionally have enrolled significant numbers of students who are members of racial or ethnic minorities.¹⁸ In particular, Catholic schools have long been an option for Hispanic and black families. The early Spanish missionaries established schools at their missions in what are now the states of Florida, Louisiana, New Mexico, Texas, Arizona, and California (Buetow, 1970). Catholic schools in these states, as well as in the archdioceses of Chicago, New York, and Newark, and the Diocese of Brooklyn, now enroll significant numbers of Hispanic students. As part of its evangelization of the black community, the Catholic Church established schools at all levels (Buetow, 1970). As Franklin and McDonald (1988) noted, separate black Catholic elementary and secondary schools developed in cities where segregation was mandated by law, such as Baltimore, New Orleans, St. Louis, and Washington, D. C., and northern cities, such as Boston, Chicago, New York, and Philadelphia, established predominantly black parish schools in response to migrations from the South. Following their desegregation in the late 1940's and 1950's, Catholic schools attracted many blacks, especially in large cities.

During the 1970's, however, Catholic schools became even more accessible and attractive to minority students, particularly blacks and Asians, than in the past. Many schools, especially those in the inner city of large metropolitan areas, enrolled larger numbers of minority students as the general decline in the number of Catholic children and the movement of Catholic families to the suburbs left these schools with many vacant seats. Perhaps the schools also were responding to the challenge issued by Professor Robert J. Havighurst in November of 1967 at the Washington Symposium on Catholic Education, which NCEA sponsored to search for answers to the problems facing Catholic schools across the nation. In one of the position papers prepared for the symposium, Havighurst challenged the participants to work with the inner-city, lower working-class populations that did not attend Catholic schools (Havighurst, 1968). For whatever reason, minority parents turned to Catholic schools in droves.

Research has shown that Catholic schools are more likely to have higher percentages of minority students than are other nonpublic schools. For example, Kraushaar (1972, p. 238) reported that the minority enrollment of the Catholic elementary and secondary schools in his study was slightly less than 7 percent, while the minority enrollment was less than 4 percent for independent schools and less than 3 percent for Episcopalian and Lutheran schools. Only Seventh Day Adventist schools had a higher minority enrollment (13 percent) than did Catholic schools. Using estimates from *High School and Beyond*, Coleman and his colleagues (1982, p. 71) documented that the black and Hispanic enrollment of Catholic high schools in 1980 was approximately 13 percent, compared with approximately 11 percent for all private high schools.

The minority enrollment of Catholic schools increased dramatically in the 1970's and early 1980's (see Table 3-9). The number of minority students in Catholic schools increased by approximately 145,000 from 1970 to 1982. By 1982, a Catholic school student was almost two times more likely to be from a minority population than in 1970 as the ratio of minority students increased from about one in 10 students to about two in 10 students. During this period, the number of minority students in Catholic elementary schools alone increased by almost 100,000. In 1982, almost 500,000 minority students were enrolled in the nation's Catholic elementary schools. From 1982 to 1989, however, the minority enrollment of Catholic elementary schools decreased by about 44,000 students. Still, minority students constituted 23.3 percent of the total enrollment of Catholic elementary schools in 1989, slightly higher than the 21.8 percent in 1982. The higher percentage indicated that the relative decline in minority enrollment from 1982 to 1989 was slower than the decline in the overall enrollment of Catholic elementary schools.

The percentage of minority students in Catholic secondary schools has historically been smaller than the percentage in Catholic elementary schools. In 1970, 8.2 percent of students in Catholic secondary schools and 11.4 percent of students in Catholic elementary schools were from minority populations. The 1980's saw a consistent decrease in the difference between the percentage of minority students in elementary and secondary schools. By 1989, minority students constituted 22.2 percent of the enrollment of secondary schools, only 1.1 percentage points lower than the proportion of minority students in elementary schools.

The total minority enrollment of Catholic secondary schools increased substantially from 1970 to 1986 and declined slightly from 1986 to 1989. The 138,500 minority students enrolled in Catholic secondary schools in 1986 represented an increase of 52,800 (63 percent) from the 83,700 minority students enrolled in 1970. From 1986 to 1989, the minority enrollment of Catholic secondary schools declined by 3900 students; however, as in the case of the elementary schools, this decline was slower than the decline in the total enrollment, as evidenced by the increasing relative

percentages from 1986 to 1989 (see Table 3-8).

Students from Hispanic, black, and Asian populations constituted virtually all of the minority students in Catholic schools. From 1965 to 1989, a minority student in a Catholic school was slightly more likely to be Hispanic than black and was considerably less likely to be Asian. In 1989, 44.4 percent of the total minority enrollment of Catholic schools was Hispanic, 38.2 percent was black, and 15.5 percent was Asian. Viewed in another way, about one of every 10 students in Catholic schools in 1989 was Hispanic and about one in 11 was black, while about one in 28 was Asian. In 1989, black and Hispanic students were slightly more likely to be found in Catholic elementary schools than in Catholic secondary schools, while Asian students were slightly more likely to attend Catholic secondary schools than Catholic elementary schools.

Asian Students

The most dramatic increase in the minority enrollment of Catholic schools from 1970 to 1989 occurred for Asian students. In 1970, about 23,500 Asian students were enrolled in Catholic schools. By 1989, Catholic schools enrolled over 89,000 Asian students, an increase of over 280 percent. The relative increase (59 percent) in the number of Asian students in Catholic schools from 1980 to 1988 was similar to the change in the Asian population (70 percent) in the United States during the same period. Furthermore, in 1988, Asian students were somewhat overrepresented in Catholic schools (3.2 percent of the enrollment), compared with the population of the United States (2.7 percent of the population). Catholic schools in California, Hawaii, New York, Chicago, and Newark had significant numbers of Asian students (Bredeweg, 1985). The Bureau of the Census reported¹⁹ that, before 1980, most Asian immigration originated from Vietnam, Cambodia, and Laos. Since 1980, the number of immigrants from China, Taiwan, the Philippines, India, and Iran has increased substantially.

Black Students

The number of black students in Catholic schools increased by about 57,000 between 1970 and 1982 and declined sharply between 1982 and 1989 (see Table 3-9). In 1982, over 209,000 black students were in Catholic elementary schools. In 1989, the black enrollment in Catholic elementary schools was 170,600, a decline of 18 percent from 1982 and almost 2000 fewer than in 1970. The closing of inner-city parochial schools and higher tuition undoubtedly contributed to this decline.

The decline in black secondary school enrollment began in 1985 and was slightly more moderate than was the decline in elementary schools. In 1989, almost 8000 fewer black students attended Catholic secondary schools than attended in 1985, a decline of 14 percent. Because of the decreasing number of black students attending Catholic elementary schools, the black enrollment in Catholic secondary schools is likely to continue to decline during the 1990's.

Black students tend to be underrepresented in Catholic schools. One criterion for examining representativeness is to compare the percentage of black students in Catholic schools with the percentage of black students in all schools. In 1980, for example, 13.9 percent of the nation's high school sophomores and 11.5 percent of its high school seniors were black, approximately double the corresponding percentages of black students in Catholic secondary schools that year (Coleman et al., 1982). Blacks were still underrepresented in Catholic schools in 1989, when 9 percent of the enrollment of all Catholic schools was black. A second criterion for examining representative-

ness is to compare the percentages of each subpopulation of students who attend Catholic schools. Condon (1984), using the data from *High School and Beyond*, reported that, although 7 percent of the nation's high school sophomores in 1980 attended Catholic high schools, only 3 percent of the black sophomores were in Catholic high schools, compared with 5 percent of the Hispanic sophomores, 6 percent of the Asian sophomores, and 8 percent of the white sophomores.

Religion is a more important determinant of the attendance of black students at Catholic schools than is family income. Williams (1986) noted that, when religion was not controlled, blacks were less likely than whites to enroll in private schools, even when family income was taken into account. However, when Coleman and Hoffer (1987) controlled for religion, black children were just as likely as white children to attend Catholic high schools, despite having lower average family incomes. Once both income and religion were controlled, research showed that Catholic high schools enrolled black students in higher proportions than white or Hispanic students (Coleman et al., 1982, p. 57).

Generally, Catholic schools in urban areas and the Southeast had significant black enrollments in the 1980's. For example, in 1983-84, large numbers of black students attended the Catholic schools of the 10 largest urban dioceses.²⁰ In addition, black students constituted a significant portion (over 19 percent) of the enrollment of Catholic schools in the states of Alabama and Georgia, as well as in the dioceses of New Orleans, Oakland, and Washington, D. C. (Bredeweg, 1985, p. xxv). Data from the NCEA study on high schools, *The Catholic High School: A National Portrait* (Yeager et al., 1985) indicated that black students were more likely found in smaller rather than larger high schools, in single-sex rather than coed schools, and in the Mideast, Southeast, and Great Lakes regions of the country, rather than in New England, the Plains, and Far West. Yeager and his associates also reported that black students were as likely to attend private high schools as diocesan or parochial high schools.

Hispanic Students

The number of Hispanic students in Catholic schools also increased rapidly from 1970 to 1982 and declined somewhat since 1982. While the relative increase in the enrollment of Hispanic students was virtually the same as the increase in the enrollment of black students, the decline in the Hispanic enrollment since 1982 was about half the decline in the black enrollment. In 1989, Hispanics constituted the largest minority group in Catholic schools, with almost 197,000 elementary school students and 60,000 high school students. Hispanics were more likely to be enrolled in Catholic schools in the Far West region, which includes Texas, New Mexico, Arizona, and California, than in other regions (Yeager et al., 1985). However, significant numbers of Hispanic students also were enrolled in the Catholic schools of Chicago, New York, Brooklyn, Newark, and South Florida. Yeager and his associates also found that Hispanic students were more likely to be enrolled in single-sex rather than coed high schools and in smaller schools rather than larger schools. Furthermore, Hispanic students were most likely to attend parochial high schools than other high schools, and they were slightly more likely to attend private high schools than diocesan high schools (Yeager et al., 1985).

FAMILY INCOME

How does the economic situation of families who send their children to Catholic schools differ from families who send their children to other types of schools? The evidence from national

studies that have compared the incomes of families with children in different types of schools reveals that families with children in Catholic schools are, on average, more affluent than families with children in public schools, but less affluent than families with children in other private schools (Coleman et al., 1982; Hafner et al., 1990; Kraushaar, 1972; Williams, 1986). In addition, the studies also showed that: (1) the likelihood of attending a private school increases as family income increases (Williams, 1986); (2) Catholic schools serve families with a wide range of family income (Coleman et al., 1982; Hafner et al., 1990; Yeager et al., 1985); (3) most students in Catholic schools come from low-income to middle-income families (Coleman et al., 1982; Hafner et al., 1990); (4) Catholic schools enroll a significant number of poor children²¹ (Cibulka et al., 1982; Greeley, 1982; Kraushaar, 1972; Yeager et al., 1985); and (5) the income distributions of Catholic school families and public school families have considerable overlap, with Catholic school families being underrepresented at the lowest income levels and overrepresented at the highest income levels (Coleman et al., 1982).

Catholic schools as a group traditionally have exhibited the greatest diversity among nonpublic schools in the socioeconomic backgrounds of their students (Havighurst, 1968; Kraushaar, 1972). In the late 1960's, Robert Havighurst offered two reasons for this diversity: (1) the wide socioeconomic range of the Catholic population, and (2) the relatively low tuition of Catholic schools, compared with tuition in other private schools (Havighurst, 1968, p. 17). The Catholic population continued to exhibit a wide socioeconomic range through the 1970's, as evidenced by the 1980 family income distributions of Catholic families with high school sophomores (see Table 3-10). However, the higher costs of operating Catholic schools in the 1970's and 1980's resulted in moderate tuition increases in the 1970's and dramatic increases in the 1980's. For example, the average per-pupil cost of Catholic elementary schools jumped from \$240 in 1970 to \$1476 in 1989 (Kealey, 1990). The average per-pupil cost of Catholic secondary schools in 1989 was \$3517 (Guerra & Donahue, 1990).

During the same period, Catholic schools became more tuition-dependent. The percentage of the operating costs of Catholic elementary schools paid for by tuition income rose from less than 30 percent in 1970 to almost 63 percent in 1989; the percentage for Catholic high schools was 65 percent in 1989. The rapid rise in operating costs, accompanied by the steep drop in enrollment, resulted in spiraling tuition costs. In 1970, 72 percent of Catholic elementary schools charged less than \$100; by 1986, only 15 percent charged less than \$300 and about 33 percent charged more than \$900. In 1989, the average tuition in Catholic elementary schools was \$924 (Kealey, 1990).²² The tuition charged by Catholic high schools was even higher. In 1989, for example, the median tuition in Catholic high schools was \$2299 (Guerra & Donahue, 1990). However, in some cases, the tuition at Catholic high schools was as much as seven to 10 times greater than the tuition charged by elementary schools.

The tuition requirement for virtually all Catholic and other private schools increases the likelihood that attendance at a nonpublic school is associated with family income. Furthermore, families with higher incomes often are more resourceful in, and more capable of, seeking the best schools for their children. Indeed, Williams (1986) found that the likelihood of attending a private school increased as family income increased. Using data from the Bureau of the Census, Williams showed that in 1985, for example, the percentage of all families enrolling children in private schools steadily rose from 3.5 percent of the families with incomes less than \$7500 to 20 percent of the families with incomes greater than \$50,000. Thus, a family with an income greater than \$50,000 was almost six times more likely to enroll children in a private school than was a family with an income less than \$7500. Williams also found that the likelihood of attending a private

school increased with family income for black and Hispanic families as well as white families; however, both white and Hispanic families at all income levels were more likely²³ than black families to enroll their children in a private school.

Williams did not perform separate analyses for Catholic schools and other private schools; however, she did report separate results for church-related private schools and for nonchurch-related private schools. Not only did she find that the relationship between family income and attendance at a private school was higher for nonchurch-related private schools than for church-related private schools, but also that the family incomes of students in nonchurch-related private schools were much higher than those in church-related private schools. Moreover, this finding, and Williams' observation that the tuition for non-Catholic church-related schools was, on average, about 75 percent higher than tuition for Catholic schools, increased the likelihood that Kraushaar's finding of greater income diversity in Catholic schools, when compared with other private schools, still held in 1985.

How does the income of families whose children are in Catholic schools differ from the income of families whose children are in public schools? The best data available to address this question come from *High School and Beyond*. As expected, because families of Catholic high school children often pay very high tuition, the research showed that, on average, these families had higher incomes than did families of public school children, but lower incomes than did families with children in other private schools. Coleman, Hoffer, and Kilgore (1982, p. 38) reported that, in 1980, the median income was \$22,700 for families with children in Catholic high schools, \$18,700 for families with children in public high schools, and \$24,300 for families with children in other private high schools. Table 3-10²⁴ shows the family income distributions of: (1) all high school sophomores; (2) all high school sophomores who are Catholic; (3) all sophomores in Catholic schools; and (4) all Catholic sophomores in Catholic schools. Several trends are evident in Table 3-10. First, families with children in Catholic schools were more affluent than the families of all 1980 sophomores. The largest differences between the incomes of Catholic school families and all families were at the extremes of the income distributions. Over 30 percent of the families with children in Catholic high schools in 1980 had incomes of at least \$40,000, compared with less than 20 percent of families with children in public high schools, and about 10 percent of the Catholic high school families had incomes less than \$15,000, compared with approximately 20 percent of public high school families. Second, Catholic families with children in Catholic schools had higher family incomes than all the Catholic families with high school sophomores. Over 31 percent of the Catholic families with children in Catholic schools had incomes of at least \$40,000, compared with only approximately 18 percent of all Catholic families. Third, as Coleman et al. (1982) noted when comparing families in Catholic schools and families in public schools, the family income distributions of students in Catholic schools had considerable overlap with the family income distributions of all students and of all Catholic students. While the different subpopulations in Table 3-10 were increasingly more affluent, they differed only slightly in their mid-range values, with each having about 60 percent of the families with incomes between \$15,000 and \$40,000.

The data from NELS:88 also showed that the socioeconomic (SES) levels of students in Catholic elementary schools were generally higher than those in public schools, but not as high as those in independent and other private schools (Hafner et al., 1990, p. 19). Just over a third of the students in Catholic schools were in the highest SES quartile, compared with 22 percent of public school students, 87 percent of independent school students, and 55 percent of other private school students. On the other hand, about 10 percent of the students in Catholic schools were in the

lowest SES quartile, compared with 27 percent of public school students and 5 percent of other private school students.

How important is family income in parents' deliberations concerning whether or not to send their children to Catholic schools? Table 3-11, which shows the percentage of the 1980 sophomores in *High School and Beyond* who attended Catholic schools at selected elementary and secondary grades, provides a partial answer to this question. The use of a single cohort group, 1980 sophomores, controls for fluctuations in the number of students from year to year; however, it does not control for other demographic factors, such as mobility of the population to areas with limited access to Catholic schools. Therefore, changes in the percentage of students enrolled in Catholic schools from one grade to another could be due to limited access, finances, dissatisfaction, inability to compete, or change in priorities.

In 1980, 7 percent of high school sophomores were enrolled in Catholic high schools; however, during their elementary-school years, from 9 percent to 11 percent of them were enrolled in Catholic schools (Condon, 1984). How important is family income in explaining the lower percentages for Catholic high schools or in explaining the changes in the percentages for the selected elementary grades? While a more complete discussion of how family income influences decisions about choice of schools must wait until Chapter 7, the evidence from Table 3-11 suggests that income plays an important, and perhaps the major, role in deciding whether or not to send a child to a Catholic school. A clear relationship was present between family income in 1980 and attendance at a Catholic school. For each grade, higher percentages of the 1980 cohort attended Catholic schools as family income increased. Furthermore, the relationship between income and the likelihood of attending a Catholic school was stronger for high schools than for elementary schools. That is, students from families with low incomes were much less likely to have enrolled in a Catholic high school (grades 9, 10, and 12) than in a Catholic elementary school (grades 1, 5, and 8). Moreover, the potential influence of a financial burden decreasing the likelihood of attending a Catholic school as tuition increases is seen in the systematic decline in the Catholic school enrollment of the 1980 cohort, especially from elementary school to secondary school, for each income level, except for those families who earned at least \$50,000 in 1980.²⁵

The academic ability of a student also seems to affect the likelihood of enrolling in a Catholic school. For each grade level, students from higher ability quartiles were more likely than students from lower ability quartiles to enroll in a Catholic school. As with family income, however, the relationship between ability and the likelihood of attending a Catholic school was stronger for the high school years than for the elementary school years. When the 1980 sophomores were in elementary school, except for those students in the lowest quartile, little differences in the likelihood of attending a Catholic school were present. The differences in the likelihood of attending a Catholic school were more pronounced for the 1980 cohort in their high school years. These results suggest that ability was clearly a factor, more so in high school than in elementary school, in determining the likelihood of attending a Catholic school. However, the gradual decline over time at each ability quartile in the likelihood of attending a Catholic school suggests other factors also were present.

PARENTAL EDUCATION

Highly-educated parents usually are more likely than parents with less education to seek out schooling options for their children and to have the resources to pay for private schools. Williams

(1986) found that, as with family income, the likelihood that a child was enrolled in a Catholic school increased with the educational attainment of his or her parents. The parents of private school children were slightly less than two to slightly greater than three times²⁶ more likely, depending on whether or not the private school was church-related, to have at least a bachelor's degree than were parents of public school children.

The research involving Catholic schools confirmed that Williams' finding of the relationship between parental education and attendance of the child at a private school applied also to parents of Catholic school children. A substantial proportion of Catholic school parents (Coleman & Hoffer, 1987; Greeley et al., 1976; Hafner et al., 1990; Lee & Stewart, 1989; Marks & Lee, 1989), including the parents of children in inner-city schools (Cibulka et al., 1982), had attended college.²⁷ Furthermore, Catholic school parents, as a group, had attained higher levels of education than had public school parents. Estimates from *High School and Beyond* indicated that both fathers and mothers of Catholic high school students were between one and a half to two times more likely to have attended college than were fathers and mothers of public school students (Coleman & Hoffer, 1987; Greeley, 1982). In addition, the higher educational attainment of parents of Catholic school students was present for black and Hispanic students, as well as for white students (Greeley, 1982). The data from NELS:88 indicated that 37.7 percent of parents with an 8th grader in a Catholic elementary school had at least a college degree, compared with 23.6 percent of the parents of an 8th grader in a public school (Hafner et al., 1990). Moreover, the data from *High School and Beyond* (Table 3-11) showed that the likelihood of attending a Catholic school, especially a Catholic high school, increased with the educational level of the parents. Parents with at least a college degree were two times more likely than parents without a college degree to enroll a child in a Catholic high school, whereas parents without a college degree were slightly less likely than parents with at least a college degree to enroll a child in a Catholic elementary school.

CATHOLIC SCHOOL BACKGROUND OF PARENTS

Another factor associated with a child's attendance at a Catholic school is the prior attendance at a Catholic school of one or both of the child's parents. In fact, Greeley and Rossi (1966) argued that Catholic school attendance by parents was an extremely strong predictor of the attendance of their children at a Catholic school. Two different indicators of the association between the Catholic school attendance of a parent and the subsequent attendance by a child are available. The first indicator comes from studies by Greeley and his colleagues, who sampled Catholic parents and thus were in a position to estimate the probability that a child attended Catholic school, given that the parents had previously attended Catholic school. In their study conducted prior to the general decline in the enrollment of Catholic schools, Greeley and Rossi (1966) found that parents who themselves had attended Catholic schools were almost twice as likely to send their children to Catholic schools as parents who had not attended Catholic schools; 75 percent of the former sent their children to Catholic schools, compared with 36 percent of the latter.²⁸ However, between 1964 and 1974, Greeley and his colleagues found a sharp decline in the Catholic school attendance of children whose parents, or at least one parent, had attended Catholic schools themselves. In 1974, Greeley (Greeley et al., 1976) found that the percentage of parents with a Catholic school background, who enrolled their children in Catholic schools, had declined to 31 percent, while 23 percent of the parents without a Catholic school background sent their children to Catholic schools.²⁹ No other national study that used parents as the sampling unit yielded data that would permit more recent estimates of these probabilities.

More numerous are the studies that yielded the second indicator of the association between the Catholic school attendance of a parent and the subsequent attendance by a child: the probability that the parents of children in Catholic schools had attended Catholic schools themselves.³⁰ Research conducted prior to the decline in the enrollment of Catholic schools in 1965 indicated that the parents of Catholic school children were more likely to have attended Catholic schools themselves than were Catholic parents who enrolled their children in public schools (Fichter, 1958; Greeley & Rossi, 1966). Despite the decline since 1965 in the percentage of parents with Catholic school backgrounds who enrolled their children in Catholic schools (Greeley et al., 1976), the research showed that parents of most children in Catholic schools had attended Catholic schools themselves. Thus, attendance at a Catholic school by a parent remained a strong indicator of enrolling children in Catholic schools. In *Catholic Schools in Action*, Neuwien (1966) reported that 60 percent of the students in Catholic elementary and secondary schools in 1962 had parents who also had attended Catholic schools. Kraushaar (1972) found that 57 percent of the parents of Catholic elementary students and 41 percent of the parents of Catholic secondary students had attended Catholic schools. The parents of 73 percent of the graduates of Catholic schools in *The Education of Catholic Americans* (Greeley & Rossi, 1966) and 56 percent of the parents with a child in Catholic school in *Catholic Schools in a Declining Church* (Greeley et al., 1976) had attended Catholic schools.³¹

Local diocesan surveys also provided estimates of this second indicator of the association between a parent's attendance at a Catholic school and the subsequent attendance of a child at a Catholic school. From his sample of Catholic parents with school-age children in the Diocese of Cleveland, Johnson (1978) reported that 76 percent of the parents who had children in Catholic schools had themselves attended Catholic schools, compared with 52 percent of those parents with children in public schools. On the other hand, Convey (1990) found in his survey of parents in the Archdiocese of Boston, that 66 percent of the parents with children in Catholic schools and 68 percent of the parents with children in CCD programs had attended Catholic schools.

Thus, the evidence is clear that both the amount of parental education and the previous Catholic school attendance of parents increases the likelihood that a child will attend a Catholic school.

FEEDER PATTERNS FROM ELEMENTARY SCHOOLS TO SECONDARY SCHOOLS

What percentage of the graduates of Catholic elementary schools attend Catholic high schools? While most Catholic elementary schools keep this statistic, very little data are available to answer this question on a national level. The evidence that does exist suggests that about 60 percent, on average, of the graduates of Catholic elementary schools attend Catholic high schools. The evidence for this estimate, however, comes from only two sources, 15 years apart, and thus is very inconclusive. The NCEA Data Bank does not routinely collect information concerning the transition from Catholic elementary schools to Catholic high schools; however, Bredeweg (1982) reported that 58 percent of Catholic elementary school graduates in 1972-1973 attended Catholic high schools. The preliminary data of NELS:88 provided the second estimate of the percentage of Catholic elementary school students who attend Catholic high school. Of the students in the base-year sample who attended Catholic elementary schools and who went to a high school that had at least five students from the base-year sample, 61 percent went to a religiously-oriented high school, presumably a Catholic high school in the vast majority of cases (Hafner et al., 1990).

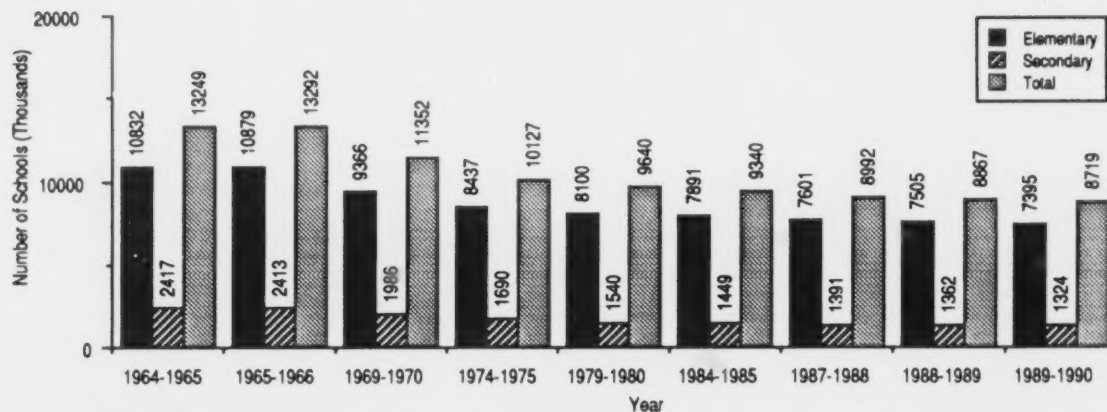
More data are available on a national level to address the related question of the percentage of Catholic high school students who also had attended Catholic elementary schools. The data from *High School and Beyond* indicated that 80 percent of the Catholic high school students in 1980 had attended Catholic elementary schools (Bryk et al., 1984), 76 percent had graduated from a Catholic elementary school (Condon, 1984), and 60 percent had attended only Catholic elementary schools (Bryk et al., 1984). *The Catholic High School: A National Portrait* (Yeager et al., 1985) provided the most extensive data to address this question. On average, 78 percent of the Catholic high school students had graduated from a Catholic elementary school. A typical student in an interparish (89 percent) or parish (86 percent) high school was more likely to be a graduate of a Catholic elementary school than was a typical student in a diocesan (78 percent) or private (74 percent) high school, as was a typical student in girls' (79 percent) or coed (79 percent) high school rather than a boys' (71 percent) high school. Catholic high school students in New England were the least likely (61 percent) and those in the Plains region (85 percent) and the Southeast (82 percent) were the most likely to have graduated from Catholic elementary schools (Yeager et al., 1985, pp. 31-32).

The proportion of students enrolled in the low-income-serving Catholic high schools studied by Benson et al. (1986), who also had attended Catholic elementary schools, was similar to those reported in *High School and Beyond* and *The Catholic High School: A National Portrait*. Eighty-four percent of all students reported that they had attended Catholic elementary schools for at least one year, and more than half (55 percent) had attended Catholic schools for seven or eight years. No previous Catholic school experience was reported by 23 percent of the black students, 15 percent of the Hispanic students, and 13 percent of the white students (Benson et al., 1986, p. 76). Interestingly, a higher percentage of non-poor students (18 percent), compared to very poor (16 percent) and moderately poor (15 percent) students, had no previous Catholic school experience, which supports Bryk et al.'s (1984) observation that students from public elementary schools tended to seek out elite Catholic high schools, which generally have high tuition.

SUMMARY

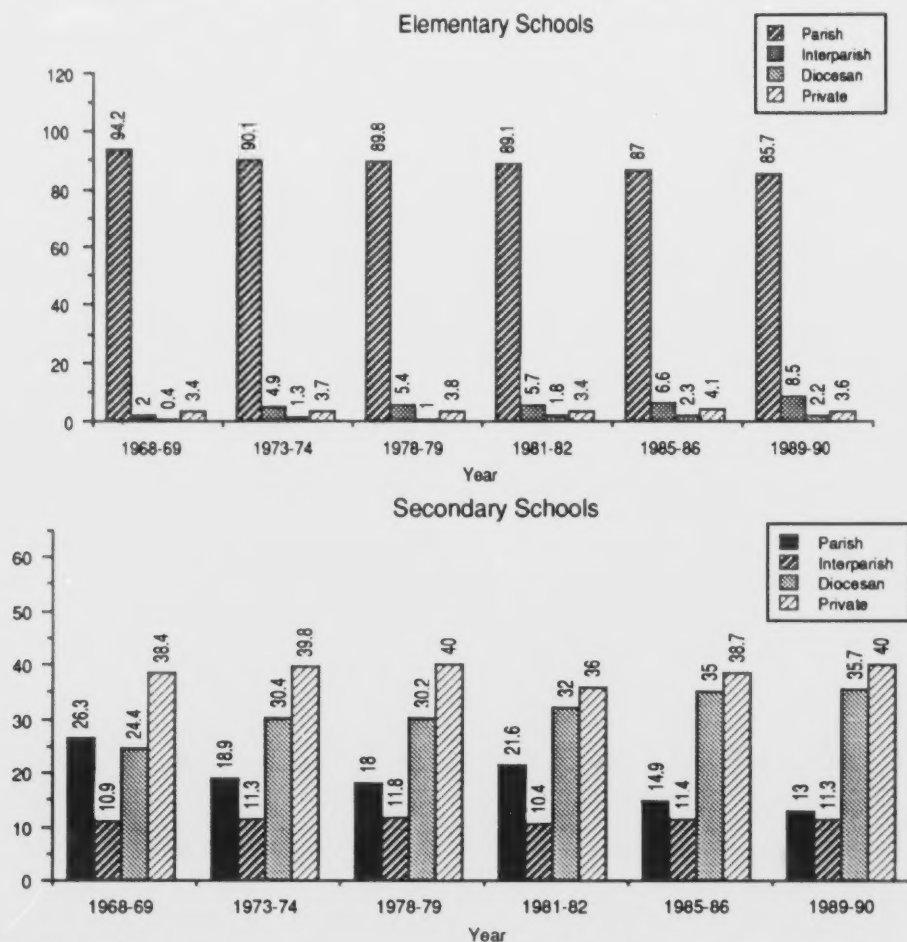
1. The combined enrollment of Catholic elementary and secondary schools reached its peak during the 1964-1965 school year and has steadily declined since. By 1990, over 3 million fewer students attended Catholic schools, compared with 1965. In addition, Catholic schools captured an increasingly smaller market share of Catholic students over the past 25 years. The factors that contributed to this decline include a sharply diminished birth rate, migration of Catholic families to areas where few or no Catholic schools were available, the higher costs of Catholic schools, more acceptance of public schools by Catholic parents, and changing social attitudes.
2. As their total enrollments declined, Catholic schools experienced an increase in the number of minority students and those who were not Catholic. Minority enrollments increased from 1965 to 1982 and, except for Asian students, declined slightly from 1982 to 1990. However, the decline in the enrollment of minority students since 1982 was slower than the overall decline in enrollment over the same period, resulting in a steady increase in the relative proportion of minority students in Catholic schools. Similar patterns were evident for the enrollment patterns of non-Catholic students.
3. Families from a wide range of socioeconomic circumstances attended Catholic schools during the past 25 years. Generally, families at the lowest and highest socioeconomic levels were somewhat underrepresented in Catholic schools. In addition, parents of Catholic school children tended to have above average formal education and were likely to have attended Catholic schools themselves.

Table 3-1: Number of Catholic Elementary and Secondary Schools for Selected Years from 1964 to 1990



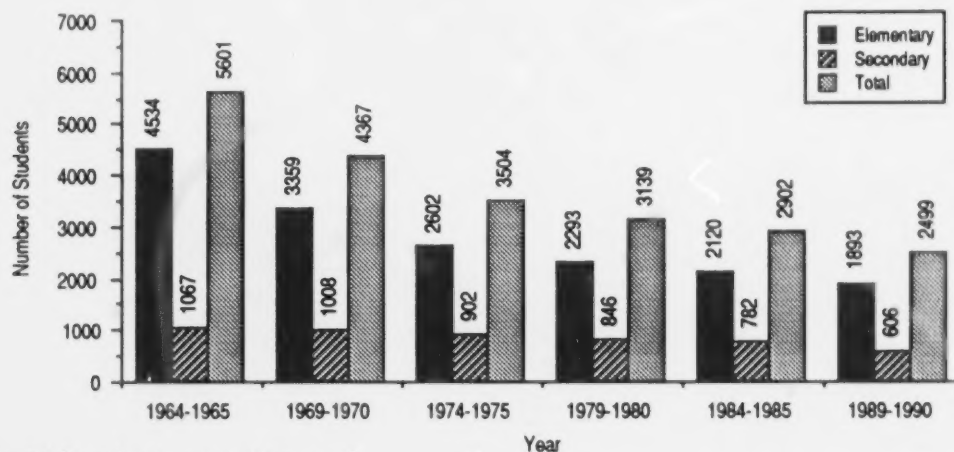
Source: Brigham (1989, p. 24; 1990, p. 9).

Table 3-2: Percent of Catholic Schools by Ownership for Selected Years



Source: NCEA Data Bank.

Table 3-3: Catholic Elementary and Secondary Enrollment for Selected Years from 1964 to 1990



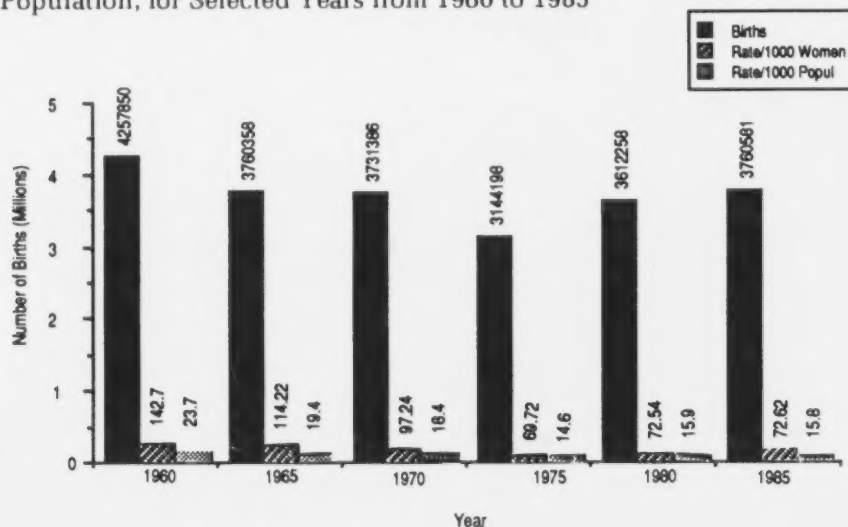
Source: Brigham (1989, p. 24; 1990, p. 14).

Table 3-4: Total, Private, and Catholic School Enrollment for Selected Years from 1960 to 1988

Year	Total United States	Private School Pupils	Private Percent of Total	Catholic School Pupils	Catholic Percent of Total	Catholic Percent of Private
1960	42,181	5900	14.0%	5253	12.5%	89.0%
1965	48,473	6370	13.1%	5574	11.5%	87.5%
1970	51,272	5363	10.5%	4363	8.5%	81.4%
1975	49,791	5001	10.1%	3415	6.7%	68.3%
1980	46,318	5333	11.5%	3106	6.7%	58.2%
1985	45,066	5557	12.3%	2821	6.3%	50.8%
1986	45,289	5452	12.0%	2734	6.0%	50.1%
1987	45,371	5347	11.8%	2623	5.8%	49.1%
1988	45,438	5241	11.5%	2551	5.6%	48.7%

Sources: Brigham (1990, p. 6); Stern & Williams (1986, p. 188); NCEA Data Bank.

Table 3-5: Total Births, Rate per Thousand Women Ages 15-39, and Rate per Thousand in the Population, for Selected Years from 1960 to 1985



Sources: Brigham (1990, p. 4); U. S. Department of Education (1988, p. 12).

Table 3-6: Estimated Percentage of Catholic Children Attending Catholic Schools for Selected Years from 1962 to 1987

Year	All Schools	Elementary Schools	Secondary Schools	Source
1962	—	52%	32%	Neuwien (1966)
1964	44%	—	—	Greeley et al. (1976)
1965	—	47%	28%	Thompson & Hemrick (1982)
1974	29%	—	—	Greeley et al. (1976)
1979	—	33%	22%	Harris (1989)
1980	—	—	18%	Coleman et al. (1982)
1980	—	23%	16%	Thompson & Hemrick (1982)
1982	19%	—	—	Williams et al. (1983)
1985	—	30%	21%	Harris (1989)
1985	28% ¹	—	—	Gallup & Castelli (1987)
1987	—	27%	19%	Harris (1989)

¹ Estimate includes Catholic children in nonpublic schools, not only those in Catholic schools.

Table 3-7: Market-Share Analysis of Catholic Elementary and Secondary Schools by Region: 1979-1987

Region	% Catholic Children in Catholic Schools		% Change Catholic School-Age Population	% Change Catholic Enrollment of Catholic Schools
	1979	1987	1979-1987	1979-1987
Elementary Schools: Grades 1-8				
New England	17	15	-13	-23
Mideast	36	30	- 8	-25
Great Lakes	40	36	-12	-20
Plains	40	39	-10	-13
Southeast	42	36	- 0	-16
West/Far West	23	18	+11	-15
United States	33	27	- 5	-20
Secondary Schools: Grades 9-12				
New England	15	15	-20	-19
Mideast	25	22	-15	-23
Great Lakes	25	23	-18	-25
Plains	26	23	-17	-28
Southeast	27	25	- 8	-16
West/Far West	15	13	+ 2	-14
United States	22	19	-12	-22

Source: Harris (1989).

Table 3-8: Non-Catholic Enrollment by Region, 1982-83 and 1989-90

Region	1982-83		1989-90	
	Number	Percent	Number	Percent
Elementary Schools				
New England	10,074	6.9%	10,777	9.5%
Mideast	70,900	10.0%	69,001	12.2%
Great Lakes	59,843	10.3%	53,423	10.2%
Plains	10,890	5.5%	8695	4.2%
Southeast	41,745	16.5%	36,128	15.8%
West/Far West	37,518	11.1%	36,911	12.1%
United States	231,400	10.4%	214,889	11.3%

Secondary Schools

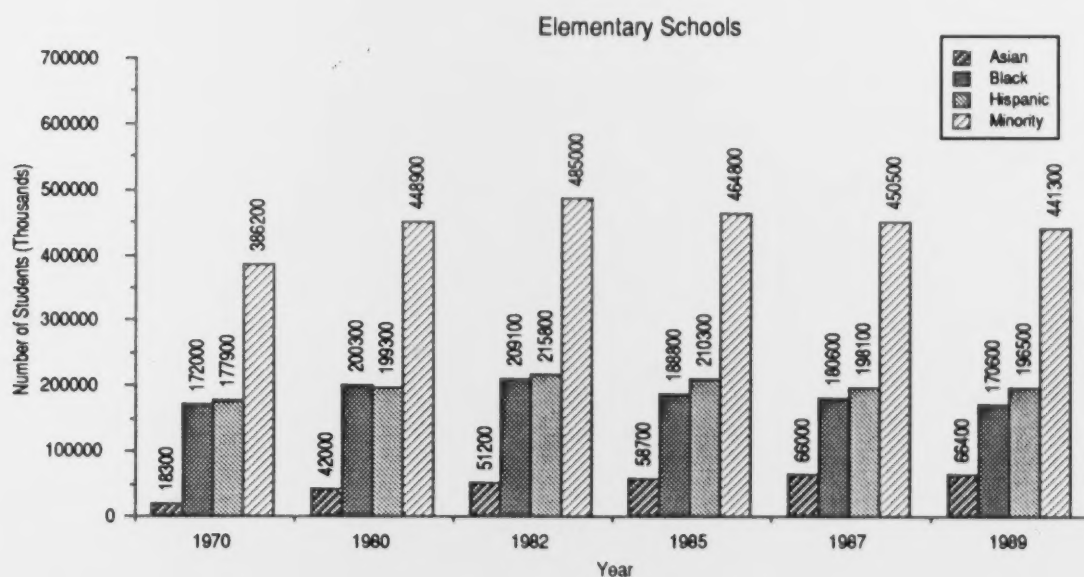
New England	5092	7.6%	5187	10.9%
Mideast	20,514	7.8%	23,431	12.1%
Great Lakes	23,010	11.8%	20,568	14.5%
Plains	3366	5.1%	4185	8.7%
Southeast	14,355	16.5%	12,415	17.4%
West/Far West	20,787	16.9%	20,539	19.9%
United States	89,712	11.2%	86,325	14.3%

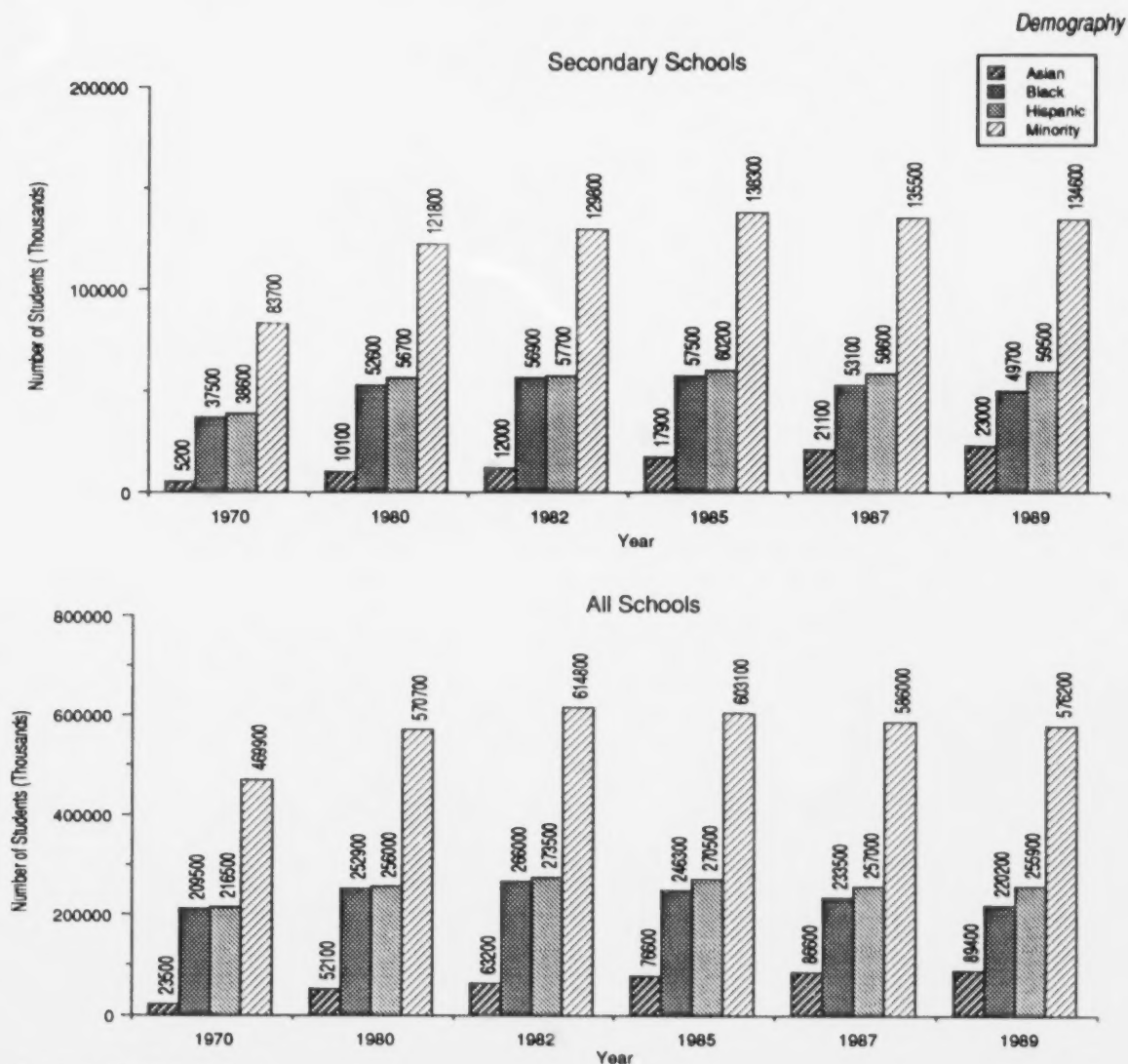
All Schools

New England	15,166	7.1%	15,964	9.9%
Mideast	91,414	9.4%	92,432	12.2%
Great Lakes	82,853	10.7%	73,991	11.1%
Plains	14,256	5.4%	12,880	5.0%
Southeast	56,100	16.5%	48,543	16.2%
West/Far West	58,305	12.6%	57,540	14.1%
United States	321,112	10.6%	301,214	12.0%

Source: NCEA Data Bank.

Table 3-9: Race/Ethnicity Enrollment for Catholic Elementary and Secondary Schools for Selected Years from 1970 to 1989





Source: NCEA Data Bank.

Table 3-10: Distribution of 1980 Family Income² of Sophomores in *High School and Beyond*

Income (Thousands)	All Students %	All Catholic Students %	All Students in Catholic Schools %	All Catholics in Catholic Schools %
< 8	7.3	4.8	2.1	1.8
8 - < 15	15.1	12.9	8.5	8.5
15 - < 20	13.8	12.8	9.0	8.5
20 - < 25	14.2	14.4	12.7	12.1
25 - < 30	14.5	16.4	16.4	16.4
30 - < 40	16.3	17.0	20.6	21.2
40 - < 50	8.3	10.2	12.7	13.3
50 OR >	10.5	11.4	18.0	18.2

Source: 1980 Sophomore Cohort, Second Follow-Up, High School and Beyond.

² Income data reported in this table are weighed estimates by National Center for Education Statistics from Parent Questionnaires.

Table 3-11: Percent of 1980 Sophomores who Attended Catholic Schools at Selected Grades, According to Income, Ability, and Parents' Education

Grades	1	5	8	9	10	12
1980 Sophomores in Catholic Schools	11	10	9	7	7	6
By 1980 Family Income in Thousands						
< 8	6	5	5	2	2	2
8 - < 15	7	7	5	4	4	3
15 - < 20	9	9	8	5	5	4
20 - < 25	10	10	9	6	6	5
25 - < 30	13	12	11	8	7	7
30 - < 40	13	12	12	10	9	9
40 - < 50	14	13	13	12	12	12
50 OR >	12	12	11	13	13	13
By Ability Quartile in 1980						
Low	7	6	5	3	2	2
25 - 49	11	10	9	6	6	5
50 - 75	12	11	11	9	9	9
High	13	13	12	11	11	11
By Parents' Education						
HS Grad Only	11	10	9	5	5	5
4 Yr College Degree	13	12	11	10	10	10
Masters	12	12	11	11	10	9
Ph.D. or Advanced	11	11	11	12	11	11

Source: Condon (1984).

OUTCOMES

In most studies of school effectiveness, researchers concentrate on outcomes of an academic nature when examining the effects of schools on students. Typically, the outcomes involve indicators of the students' academic success: performance on standardized tests, perseverance in school, and success in postsecondary endeavors. Catholic schools are academic institutions, so these academic outcomes are important to consider when examining the effectiveness of Catholic schools.

Catholic schools, however, do more than simply teach academic subjects. Catholic schools are faith communities that strive to develop in their students an understanding of the Catholic faith, a commitment to the practice of their religion, and a set of values that will influence the students' present and future lives. Thus, the examination of the effectiveness of Catholic schools must go beyond the traditional academic outcomes and include the effects of Catholic schools on the religious education and value development of their students.

ACADEMIC OUTCOMES

Academic Achievement

Schools commonly use standardized achievement tests to monitor the progress of their students. Most commercially-available standardized achievement tests are norm-referenced in nature. Such tests sort students along a continuum on some content domain and they permit the comparison of the students' performances to those of other students in some appropriate norm group. In addition, the items on norm-referenced tests are selected so as to produce a high degree of separation among the scores of the students who are tested. Norm-referenced tests are intended to provide information about individual students and, despite repeated attempts by school districts to promote them as such, are normally by themselves inappropriate indicators of the relative effectiveness of the schools that the students attend. However, good instruction by effective teachers can, and often does, have an effect on the performance of students on these tests, especially if the content sampled by these tests closely matches the curriculum of the school and the instructional emphasis of the teachers.

With few exceptions, the research has shown that children from Catholic elementary and secondary schools, on average, score better than children from public schools on standardized tests of achievement (see Table 4-1). The higher performance of children from Catholic schools on commercially-available standardized tests has been recognized for years (Donovan & Madaus, 1985; Madaus & Linnan, 1973; Rossi & Rossi, 1961). Higher Catholic school performance continued to occur for the tests used in *High School and Beyond* (Bryk et al., 1984; Coleman et al., 1982; Coleman & Hoffer, 1987; Greeley, 1982), the *National Assessment of Educational Progress* (Lee & Stewart, 1989; Marks & Lee, 1989), and the *National Education Longitudinal Study of 1988*

(Rock & Pollack, 1990; Snyder, 1989). Further, the longitudinal *High School and Beyond* data demonstrated that the Catholic-school advantage increased as the students continued in high school from 10th grade to 12th grade (Coleman & Hoffer, 1987).

Achievement in Catholic Elementary Schools

Research has shown that the performance of students in Catholic elementary schools on standardized tests has consistently exceeded the performance of the students who were part of national norming samples. The superior performance of students in Catholic schools has occurred on virtually every major standardized test of achievement. Madaus and Linnan (1973) reported that Catholic school norms exceeded national norms on the *Iowa Test of Basic Skills*, the *Comprehensive Test of Basic Skills*, and the *California Achievement Test*. In *Catholic Schools in Action*, Catholic elementary schools scored significantly above the mean of the national norms on the *Stanford Achievement Test* (Neuwien, 1966). In a study for the Archdiocese of Boston, Walsh et al. (1969) reported that the average scores of Catholic school students in grades 2, 4, and 7 equaled or exceeded the national average on nearly all subtests of the *SRA Achievement Test*.

In addition, studies that compared the performance of students in Catholic elementary schools on standardized achievement tests with the performance of public school students have shown that Catholic school students generally scored better on these tests. Lennon (1948) found that the performance of a nationally-representative sample of over 3000 Catholic elementary school students exceeded the performance of a nationally-representative sample of 3000 public school students on most subtests¹ of the *Metropolitan Achievement Test*, with the differences in the performance between Catholic and public school students increasing in the upper grades of elementary school. After matching two nationally-representative groups of 8th graders from Catholic and public schools on non-verbal reasoning, geographic region of the country, and gender, Bauernfeind and Blumenfeld (1963) found that the average score of students from Catholic schools was from one-half to one grade-equivalent units higher than the average score of public school students on the *SRA High School Placement Test*.

One of the first longitudinal studies of student performance in Catholic and public elementary schools was conducted in association with the Rhode Island State Testing Program in the early 1970's (Morton, 1979). The study was occasioned by the finding that, in past years, parochial school students in the 4th and 8th grades consistently outperformed their public school counterparts on the Rhode Island State Testing Program. Morton compared the performance of Catholic school and public school 4th graders on the *Iowa Test of Basic Skills* during the 1970-71 school year with their performance four years later in the 8th grade. Morton found that the averages of the Catholic school students in the 4th grade were from two to three months higher and in the 8th grade from four to 11 months higher than the averages of their public school counterparts. Moreover, the parochial school students in each quartile of the score distribution maintained or improved their average percentile ranks from the 4th to the 8th grade, while the average percentile ranks of the students from public schools slightly decreased.²

The *National Assessment of Educational Progress* (NAEP) provides an excellent opportunity to compare the performance of students in Catholic elementary schools with those in public schools. In addition to its national scope, the results are particularly important because NAEP uses domain-referenced tests that are more sensitive than norm-referenced tests as indicators of effective instruction. The primary criterion for including an item on a domain-referenced test is the match between the item and the desired content area. The primary objective of a domain-referenced test

is to assess how well a student knows a particular content area. A domain-referenced test is not required, as is a norm-referenced test, to provide maximum separation among all students, but instead it is designed to discriminate those who know the content domain well from those who do not.

In a series of studies based on the NAEP data, Valerie Lee (Lee, 1985, 1987; Lee & Stewart, 1989; Marks & Lee, 1989) documented the consistently higher scores of Catholic school students, compared with public school students. The average Catholic school student in NAEP in Grade 4 and Grade 8 during the 1983-84 academic year scored significantly higher than his or her public school counterpart³ in reading and writing, and in Grade 3 and Grade 7 during the 1985-86 academic year, higher in reading, science, and mathematics (see Table 4-2).⁴ In addition, the differences between the performances of Catholic school students and public school students were greater in the higher grades than in the lower grades. Lee and her associates did not control⁵ for individual student characteristics and family background, so it was not possible for them to disentangle the effects of family and student background from the effects of the school. However, the domain-referenced nature of the NAEP tests increases the likelihood that school factors, such as the quality of the instruction in Catholic schools, contributed to these increasing differences in subsequent grades. Students in effective schools usually show greater increases in their test performance than students from less effective schools. However, the cross-sectional data of NAEP and the inability of Lee to control for student characteristics and family background prevent a conclusive determination of cumulative Catholic school effect.

Lee's analyses also revealed that the racial/ethnic background of the students and the education level of their parents, which often are significant predictors of performance on achievement tests, were less strongly associated with test performance for students who attended Catholic schools than for students who attended public schools. The differences between the test performance of minority students, especially Hispanics, compared with white students, generally were smaller in Catholic schools than in public schools. In addition, the larger differences between Catholic school students and public school students in higher grades, compared with lower grades, were present for black and Hispanic students, as well as for white students. Also, the achievement advantage of Catholic schools over public schools, especially for math and science, was greatest for students whose parents had the lowest levels of education. (See Chapter 8 for an additional discussion of these findings.)

Additional evidence for the superior performance of students from Catholic elementary schools comes from the tests administered as part of NELS:88. The preliminary results of these tests showed that Catholic school 8th graders scored higher than public school 8th graders in reading, science, mathematics, and social studies⁶ (Rock & Pollack, 1990; Snyder, 1989). Catholic school students were more likely than public school students to score in the highest quartiles of each of these tests and far less likely than public school students to score in the lowest quartiles (see Table 4-3). Furthermore, the differences between the mean scores of the Catholic school and public school students were greater for social studies and English than they were for science and mathematics. The differences ranged from .18 standard deviation units for science, typically considered as a small effect, to .42 standard deviation units for social studies, a moderate effect.

In addition to the traditional percentile scoring, the reading and mathematics tests were scored according to proficiency levels (Rock & Pollack, 1990). For the reading test, the highest proficiency level was the ability to make inferences beyond the author's main idea and/or to understand and evaluate abstract concepts. A considerably higher percentage of the 8th graders in Catholic

schools (44 percent) than in public schools (32 percent) attained this level. For the mathematics test, almost the same proportion of Catholic school students (19 percent) as public school students (18 percent) attained the highest proficiency level of conceptual understanding and/or the development of a solution strategy.

In summary, the few studies that have examined the performance of students in Catholic elementary schools on standardized achievement tests have revealed that these students score better than students from public schools. In the absence of adequate controls for family background and relevant personal characteristics that may affect students' test scores, no clear conclusions are possible regarding how much of this difference is due to the type of school attended. The inability to determine the reasons for the differences, however, does not negate the consistent findings of higher performance.

Achievement in Catholic High Schools

The superior performance of students in Catholic schools on achievement tests continues to occur in high school. As in the case of elementary schools, some studies showed that Catholic high school students attained average scores that were higher than the average scores of students in the national norm group. For example, the average scores of high school seniors in *Catholic Schools in Action* ranged from the 55th to the 79th percentile on the subtests of the *Metropolitan High School Battery* (Neuwien, 1966), and those of Catholic high school sophomores in Boston were about one standard deviation unit above the mean of the national norm group on subtests of the *Differential Aptitude Test* (Walsh et al., 1969). Other studies showed that Catholic high school students scored higher on achievement tests than did students from public high schools. In NAEP, for example, Catholic high school juniors scored significantly higher (see Table 4-2) than their public school counterparts in the reading, mathematics, writing, and science tests (Lee, 1985, 1987; Lee & Stewart, 1989; Marks & Lee, 1989). These studies, however, were descriptive, lacked longitudinal data, and applied no controls for important student background variables. As a result, none was able to verify whether the apparent Catholic school advantages were a result of what the schools themselves did or due to other factors, such as the presence of a selective student body.

The strongest evidence of a significant advantage for Catholic high schools over public high schools in academic performance came from the studies based on *High School and Beyond*, particularly those that utilized its longitudinal data. In analyzing the base-year data from *High School and Beyond*, Coleman, Hoffer, and Kilgore (1982) found that the test performance of both the sophomores and seniors in Catholic schools was higher than that of students in public schools.⁷ On the sophomore tests, the average scores for Catholic school students were 10 percent higher in science and 12 percent higher in civics, and from 17 percent to 21 percent higher in mathematics, writing, reading, and vocabulary than were the average scores of students from public high schools. Compared with public school seniors, the averages of Catholic school seniors were from 10 percent to 17 percent higher in reading, mathematics, and vocabulary, and from 3 percent lower to 7 percent higher on three tests that measured ability more than achievement: mosaic, picture number, and visual.⁸ Even after controlling for differences in family background, the Catholic school advantage remained, although it was reduced by about 50 percent.

A particularly important finding from *High School and Beyond* was that minority students in Catholic schools scored higher on the tests than did minority students from public schools. On average, Catholic school black and Hispanic students scored about a half standard deviation unit

higher than their public school counterparts, which was twice as much as the one-fourth standard deviation unit that separated non-Hispanic white students in Catholic schools from non-Hispanic white students in public schools. A related finding, one that surprised Coleman and which resulted in the "common school controversy" referred to in Chapter 2, was the greater homogeneity within Catholic schools than within public schools in the achievement of students from different racial and ethnic backgrounds and of those from families with different educational backgrounds. Although the performance of minority students was considerably lower than the performance of non-Hispanic white students in both Catholic schools and public schools, the differences between minority students and non-Hispanic white students were much smaller in Catholic schools than in public schools, about 37 percent less for Hispanics and about 23 percent less for blacks⁹ (Greeley, 1982, p. 42). Moreover, not only was achievement among students from different backgrounds more alike in Catholic schools, but it also became increasingly more alike from the sophomore to the senior year, in contrast to what occurred in public schools and other private schools (Coleman et al., 1982, p. 146).

The analysis of the base-year data also revealed that the variation in average test scores between schools was considerably less in Catholic schools than in public schools (Coleman et al., 1982). The greater similarity in the performance of Catholic schools, compared with public schools, probably resulted partly from students in Catholic schools coming from families that were more homogeneous in education and income (Coleman, et al., 1982, p. 128), and partly from the similar philosophical orientations and academic programs of Catholic schools.

The longitudinal data gathered in 1982 enabled researchers to compare the increases in test performance between the sophomore and the senior year of students from different types of schools. As seniors, students in Catholic schools continued their higher test performance, scoring from 15 percent to 19 percent higher in writing, reading, vocabulary, and mathematics, 8 percent higher in science, and 10 percent higher in civics than did the students in public schools. More important, students from Catholic schools demonstrated greater growth than students from public schools. Except for civics, Catholic school students had higher average gain scores in all tests from the sophomore year to the senior year than did public school students (see Table 4-4). These gains for Catholic school students ranged from 11 percent higher for writing to 64 percent higher for mathematics, compared with students from public schools.¹⁰

The analysis of the longitudinal data continued to reveal a strong Catholic school advantage for minority students. Using statistical models that controlled for sophomore achievement, family background, and selected student characteristics, Coleman and Hoffer (1987, p. 122) concluded that the achievement benefits of Catholic schools were considerably higher for minority students than for non-Hispanic white students. The Catholic school advantage for black and Hispanic students was more than double the advantage for white students in verbal achievement. The Catholic school advantage in mathematics was about one and a half times higher for blacks and about three times higher for Hispanics, compared with non-Hispanic whites. These results were consistent with the cross-sectional findings of Coleman et al. (1982) and Greeley (1982).

Lee and Bryk (1989) also showed a strong Catholic school advantage for disadvantaged schools. Using hierarchical linear analysis, which is a statistical model that takes into account the multilevel (student level and school level) nature of school data, they examined the mathematics achievement of seniors from *High School and Beyond*. Lee and Bryk established that Catholic high school seniors scored about a half standard deviation higher than their public school counterparts in mathematics achievement and that the difference between the achievement of minority

students and white students was smaller in Catholic schools than in public schools. However, Lee and Bryk also found that the average difference in mathematics achievement between Catholic schools and public schools was a function of the social class of the schools. That is, the Catholic school effect was larger for more disadvantaged schools; for more affluent schools, average mathematics achievement was slightly higher in public schools.

The higher gains in Catholic schools, when compared with public schools, were not necessarily direct measures of the relative effectiveness of the two types of schools. In addition to the direct effects of the schools, student characteristics, family background, and other out-of-school factors, as well as different levels of performance in the sophomore year, may have influenced the gains. However, when the different levels of sophomore performance and family background were controlled statistically, Coleman and Hoffer found a reduced, but still significant, Catholic school advantage for vocabulary, reading, mathematics, and writing, but virtually no Catholic school advantage for science and civics. Furthermore, Coleman and Hoffer replicated the Catholic school advantage for vocabulary, reading, mathematics, and writing when they compared the growth from the sophomore year to the senior year separately for students at each achievement level as sophomores. That is, when Coleman and Hoffer controlled for sophomore test performance by analyzing their data separately for different levels of sophomore achievement, Catholic high school students had larger gains from the sophomore year to the senior year than did students from public high schools. In addition, the Catholic school effects were more pronounced for students with lower sophomore achievement levels or from families with lower levels of income and education than they were for students with higher levels of sophomore achievement or from families with higher levels of income and education (Coleman & Hoffer, 1987, pp. 69-79).

Dropouts

Another important indicator of high school effectiveness is the percentage of students who successfully complete high school, or, alternatively, the percentage of students who drop out. Data from *High School and Beyond* indicated that Catholic high schools have a substantially lower dropout rate from the sophomore to the senior years, compared with other schools. The dropout rate of Catholic schools was 3.4 percent,¹¹ less than one-fourth the rate of 14.4 percent for public schools and less than one-third the 11.9 percent rate for other private, but not high-performing, schools (Coleman & Hoffer, 1987, p. 99).

Even after adjusting for student and family background, the probability that students would drop out of high school continued to be substantially lower for Catholic schools than for public schools. Bryk and Thum (1989), using a hierarchical linear model analysis that controlled for the socioeconomic status, sex, race-ethnicity, and academic background of the students, showed that the base dropout rate for Catholic schools was 35 percent lower than for public schools. Bryk and Thum also found that students are less likely to drop out in schools, both Catholic and public, where there is a committed faculty, a strong sense of community, and an emphasis on academics and discipline.

Not only did Catholic schools have a lower dropout rate than most other schools, but the holding power of Catholic schools for students who typically were at higher risk of dropping out was greater than that of other schools. The likelihood of dropping out was much smaller in Catholic schools than in most other schools for students who had poor grades, who were disciplinary problems, or who were absent frequently. The holding power of Catholic schools also was much greater than public schools and other private schools for minority students and students from

families with low socioeconomic status. Hispanic students were more likely than other students to drop out, regardless of the type of high school; however, the dropout rate for Hispanics in Catholic schools (9.3 percent) was less than half the rate in public (19.1 percent) and other private (22.9 percent) schools. In addition, the percent of blacks dropping out in Catholic schools (4.6 percent) was much lower than in public (17.2 percent) and other private (14.4 percent) schools. The socioeconomic status of a student's family had a strong association with dropping out in both Catholic and public schools. Students from the lowest SES level had the highest probability of dropping out; however, the rate for Catholic school students (14.9 percent) was less than the rate for public school students (22.3 percent). These results led Coleman and Hoffer (1987) to conclude that the benefits of Catholic schools were especially great for students from families with structural or functional deficiencies.

The following profile of Catholic school dropouts emerged from the data presented by Coleman and Hoffer (1987) and Rock et al. (1986). Catholic school dropouts considered themselves popular, but not good students. Almost half worked and viewed their jobs as more enjoyable than school. The dropouts were most likely to be Catholic rather than non-Catholic, to be Hispanic rather than non-Hispanic, and to be religiously inactive rather than active in attending religious services often or on occasion. Catholic school dropouts were more likely than other students in Catholic schools to be absent and late, to consider work more important than school and to be considered troublemakers by other students. They were less likely than other students to be satisfied with the way their education was going, to be interested in school, to like to work hard in school, and to spend time on doing their homework.

Postsecondary Aspirations, Attendance, and Success

Most Catholic high schools are predominantly college preparatory. In *The Catholic High School: A National Portrait*, Yeager et al. (1985) reported that 80 percent of the students in Catholic secondary schools were enrolled in college preparatory or academic programs. Indeed, almost a third of all Catholic high schools offered only a college preparatory curriculum (Yeager et al., 1985).

Catholic schools enroll a higher percentage of their students in college preparatory programs than do public or other private schools. Data from *High School and Beyond* indicated that 82 percent of the Catholic high schools enrolled at least 70 percent of their students in a college preparatory curriculum, compared with just 9 percent of public high schools and 58 percent of other private high schools. McMillen and Gerald (1990) reported that 87 percent of the 12th grade students in Catholic schools were in college prep courses in 1987-1988, compared with 70 percent of students in other religious private schools and 75 percent of students in non-sectarian private schools.

Furthermore, the congruity between students' educational aspirations and their educational placements is better in Catholic schools than in public schools (Lee & Bryk, 1988). For students from *High School and Beyond* who reported in 8th grade or 10th grade that they had college aspirations, the probability of being in an academic track in 10th grade was higher in Catholic schools (.80 and .83, respectively) than in public schools (.55 and .65, respectively). (See Lee & Bryk, 1988, Table 3.)

Because of the emphasis placed by Catholic schools on preparation for college, it is not surprising that the research has consistently shown that students with all or most of their education in Catholic schools have higher postsecondary educational aspirations than do students with only

some or none of their education in Catholic schools (Bryk et al., 1984; Coleman et al., 1982; Greeley, 1982; Greeley & Rossi, 1966; Rock et al., 1986). For the high school students included in Greeley and Rossi's (1966) study, 70 percent of those whose entire education was in Catholic schools planned to go to college, compared with 60 percent of those with no Catholic schooling and 55 percent of those with some Catholic schooling. Almost 20 years later, over 90 percent of the Catholic school students in *High School and Beyond* anticipated that their formal education would continue beyond high school, compared with about 75 percent of public school students. In addition, about two of every three students in Catholic high schools expected at least to graduate from a four-year college, compared with about two of every five students in public high schools (Coleman et al., 1982, p. 132). Rock et al. (1986) reported that 80 percent of the seniors in Catholic high schools in 1982 indicated they would be disappointed if they didn't graduate from college, compared with 65 percent of seniors in public schools and 76 percent of seniors in other private schools.

The high educational aspirations in Catholic schools are fairly uniform across different racial/ethnic groups. In *High School and Beyond*, for example, 64 percent of the white students, 77 percent of the black students, and 66 percent of the Hispanic students in Catholic schools expected to graduate from college; these percentages were from one and a half to one and seven-tenths times greater than the corresponding percentages of their counterparts in public schools (Greeley, 1982, p. 24). In low-income-serving Catholic high schools, 74 percent of the white students, 82 percent of the black students, and 77 percent of the Hispanic students indicated that they thought they had an excellent or good chance of graduating from college (Benson et al., 1986, p. 90). In addition, the educational aspirations among students from families of different educational backgrounds were more alike in Catholic schools than in public schools (Coleman et al., 1982).

Consistent with the predominant college-preparatory orientation of most Catholic high schools and the high educational aspirations of their students, Catholic high schools historically send a greater proportion of their graduates on to some form of postsecondary education than do public high schools. Surveys conducted by the National Institute of Education in the 1970's indicated that about two-thirds of Catholic high schools, compared with one-tenth of public schools, sent at least 80 percent of their graduates on to higher education (Hannaway & Abramowitz, 1985). In 1988, 88 percent of Catholic high school seniors applied to some college (McMillen & Gerald, 1990). Coleman and Hoffer (1987) reported large differences in the proportion of graduates from public and Catholic schools who attended college. According to data from *High School and Beyond*, approximately two-thirds of the 1980 graduates of Catholic high schools, compared with less than half the 1980 graduates of public schools, were enrolled in either a four-year or two-year college before the Spring of 1982 (Coleman & Hoffer, 1987, p. 162). In addition, a Catholic school graduate in 1980 was almost twice as likely as a public school graduate to have enrolled in a four-year college program (Coleman & Hoffer, 1987, p. 154).

Research has shown that the college-attendance rate of Catholic school students continues to exceed that of public schools students, even when controls are instituted for the average ability of the schools (Morrison & Hodgkins, 1971, 1978) and for student background characteristics and the programmatic orientation of the schools (Coleman & Hoffer, 1987). For example, Coleman and Hoffer (1987) reported that half the difference in the college-attendance rates between Catholic and public school students could be accounted for by differences in student background characteristics, particularly the orientations and expectations of the students' parents, as opposed to differences in family resources. Another large share of the difference was due to the orientation and academic emphasis of the schools. Table 4-5 shows that the difference between the 1982 full-time college-attendance rates of 1980 seniors from Catholic high schools and public high schools

was greatly reduced when the academic program of the school was controlled; however, the proportions from Catholic high schools were higher than public high schools for students who were enrolled in both academic tracks and nonacademic tracks in high school (Coleman & Hoffer, 1987, p. 154).

Another measure of the effectiveness of Catholic schools regarding preparation for college is the percentage of students who remain in college once they matriculate. According to data from *High School and Beyond*, the proportion of students enrolled in a four-year college by the Fall of 1980 who remained in college by the Spring of 1984 was greater for graduates of Catholic schools (60 percent) than for graduates of public schools (54 percent) (Coleman & Hoffer, 1987, p. 183). In addition, Coleman and Hoffer (1987, p. 190) reported that nearly all the re-entry into college occurred in the year after leaving the first college, and that re-entry rates were between 40 percent and 50 percent for public school graduates, and between 40 percent and 60 percent for Catholic school graduates. By the Spring of 1986, 30 percent of the 1980 high school seniors who attended Catholic schools had graduated from a four-year college, compared with 14 percent of those who attended public schools (Benson & McMillen, 1991). Furthermore, the 1986 college-completion rates of the 1980 high school graduates were particularly notable for those from Catholic schools who were Hispanic (25 percent, compared with 8.6 percent of Hispanics who attended public schools) and black (25.1 percent, compared with 8.7 percent of blacks who attended public schools) (Benson & McMillen, 1991, p. 110).

RELIGIOUS OUTCOMES

Religious outcomes often are more difficult to assess than traditional academic outcomes. The measurement of most religious outcomes, such as the practice of one's religion and moral values and attitudes, relies on the self-reports of the individuals involved. Furthermore, measures of the religious knowledge of school children often are inadequate, if even available. In addition, because of the role of the family in developing and promoting the religious attitudes and behaviors of children, the specific effects of Catholic schools on the religious behaviors of their students are more difficult to determine than are the effects of the schools on the academic performances of their students. However, compelling evidence does exist to support the effectiveness of the contribution that Catholic schools make to the religious practice, knowledge, and attitudes of those who attend these schools.

Greeley has conducted the most systematic examination of Catholic schools and religious outcomes. The research by Greeley and his associates in three major studies from 1963 to 1979, with data from the National Opinion Research Center (NORC), demonstrated that Catholic school attendance had a significant impact on the religious behavior and attitudes of young people and adults (Fee, Greeley, McCready, & Sullivan, 1981; Greeley & Rossi, 1966; Greeley et al., 1976). Other important findings regarding the effectiveness of Catholic schools on religious outcomes were from *High School and Beyond* (Coleman & Hoffer, 1987; Convey, 1983, 1984; Greeley, 1982), two of the NCEA studies (Benson et al., 1986; Guerra et al., 1990), *Catholic Schools in Action* (Neuwien, 1966), and research by Ferguson (1983), Lenski (1963), Ridder (1986), and Thompson (1982).

Religious Practice

Most studies that examined the religious outcomes of Catholic schools included a measure of religious practice. In these studies, religious practice typically encompassed all or some of the

following activities: attending Mass, receiving the sacraments, and engaging in prayer. In general, the rates of religious practice reported by Catholic school students in national studies conducted under strictly Catholic auspices, like *Catholic Schools in Action* or those sponsored by NCEA, tended to be higher than the rates found in national studies conducted under secular auspices, for example, the federal government or NORC. Such discrepancies can arise from: (1) data obtained at different points in time between which a real change in religious practice has occurred; (2) biased samples that are not representative of the population of young people or adults; and (3) a high percentage of socially-desirable responses that are not valid indicators of the true religious practice of the respondents. In cases where such discrepancies exist, interval estimates (upper and lower bounds) of the rates of religious practice are more appropriate than point (single number) estimates of these rates.

NORC Studies

The first of the NORC studies (Greeley & Rossi, 1966) showed that, in 1963, Catholic adults who had their entire education in Catholic schools and Catholic adolescents who were attending Catholic high schools were more likely than other Catholics to attend Mass at least weekly, receive Communion at least several times a month, go to Confession once a month, and pray daily. Greeley and Rossi developed a Sacramental Index as a measure of religious practice. Thirty-seven percent of Catholic adults who had their entire education in Catholic schools scored high on this index, compared with 24 percent of the adults who had some of their education in Catholic schools and 14 percent of the adults who had not attended Catholic schools (Greeley & Rossi, 1966, p. 81). Also scoring high on this index were 80 percent of the Catholic students in Catholic high schools at the time, compared with 47 percent of the students who had only attended Catholic elementary schools and 20 percent of those who had not attended Catholic schools (Greeley & Rossi, 1966, p. 185). Greeley and Rossi also established that the influence that the number of years of Catholic school attendance had on the religious behavior of adults and adolescents was over and above, but not as important as, the influence of the religiousness of their parents. Furthermore, Catholic school attendance seemed to have the strongest effect for students from very religious families, rather than for students from moderately religious or nonreligious families.

In the second study, in 1974, Greeley, McCready, and McCourt (1976) determined that the number of years in attendance at a Catholic school had an even stronger influence on adult religious behavior than in the 1963 study. Attendance at a Catholic school had become as important as parental religiousness in predicting adult religious behavior. The stronger effects found for Catholic schools were even more notable than 10 years earlier because of the general decline in religious practice that had occurred from 1963 to 1974. Weekly Mass attendance, monthly Confession, and daily prayer all had declined significantly¹² from 1963 to 1974, even for Catholics who had most or all of their education in Catholic schools. Still, except for monthly Confession (20 percent reported at least monthly), over 60 percent of the adults with more than 10 years of Catholic education reported regular attendance at Mass (65 percent) and daily prayer (62 percent), compared with less than one-half of other Catholics (Greeley et al., 1976, p. 162). On the other hand, the weekly reception of Communion had significantly increased from 1963 to 1974 among adult Catholics with, once again, a higher percentage of Catholics with most of their education in Catholic schools (41 percent) reporting weekly Communion, compared with Catholics with some education in Catholic schools (27 percent) and Catholics with none of their education in Catholic schools (19 percent). In effect, as Greeley noted, attendance at Catholic schools had served to slow the rate of decline in the religiousness of many Catholics.

The third study, in 1979, continued to demonstrate that Catholic school attendance had a

significant impact on the religious behavior of young people (Fee et al., 1981). The study, conducted especially for the Knights of Columbus, surveyed 1398 Catholics from the United States and 782 Catholics from Canada between the ages of 14 and 29. Catholic schools were found to have a significant impact on what young people read, believed, practiced, and valued in their lives (Fee et al., 1981, p. 109). Compared with those with eight or fewer years of Catholic schooling, young people who attended Catholic schools for more than eight years were more likely to go to Mass and receive Communion every week, believe in life after death, belong to parish organizations, think seriously about a religious vocation, and oppose abortion; however, no differences were evident between these groups regarding the frequency of prayer (see Table 4-6). In addition, the influence of Catholic schools on the religious behavior of young Catholics was stronger than the effect of parental religiousness, and, for married respondents, slightly weaker than the effect of spouse's religiousness. Moreover, among the young people who had drifted away¹³ from the regular practice of their religion, those who had attended Catholic schools were, on average, more likely to return to this regular practice than were those who had not attended Catholic schools.

High School and Beyond

The students in the 1980 base year of *High School and Beyond* reported on their religious practice and whether they considered themselves religious persons. Unfortunately, the longitudinal follow-ups in *High School and Beyond* did not repeat any of the questions concerning religious practice and religious self-evaluation. Analyses of the base-year data showed that Catholics in Catholic high schools were more likely than Catholics in other high schools to attend Mass regularly (Coleman & Hoffer, 1987; Convey, 1983, 1984; Greeley, 1982). Approximately 64 percent of the Catholic students who attended Catholic high schools in 1980 reported attending religious services at least once a week, compared with approximately 48 percent of the Catholic students who attended other high schools. Compared with Catholic students in Catholic high schools, Catholic sophomores in other schools were over two times more likely and Catholic seniors were about one and a half times more likely to rarely or never attend Mass. Catholic school Catholics of both sexes were about equally likely to attend Mass regularly; however, for Catholics not in Catholic schools, regular Mass attendance was more likely for girls than for boys (see Table 4-7).

Greeley's (1982) research on the data from *High School and Beyond* revealed differences in the likelihood of regular Mass attendance for white, black, and Hispanic Catholic students. In general, white Catholics were more likely to attend Mass regularly than Hispanic and black Catholics. In addition, Catholic school attendance was associated with higher rates of Mass attendance for white Catholics and for Hispanic Catholics, but not for black Catholics. White and Hispanic Catholics in Catholic schools were more likely to attend Mass regularly than their counterparts in other schools; however, black Catholics in other schools were as likely as black Catholics in Catholic schools to attend Mass regularly (see Table 4-8).

Other Studies

Other studies also showed that most Catholics in Catholic schools and Catholic graduates of Catholic schools reported the regular practice of their religion (Benson et al., 1986; Neuwien, 1966; Thompson, 1982) and were more likely to do so than Catholics who did not attend Catholic schools (Ferguson, 1983; Guerra et al., 1990; Lenski, 1963; Ridder, 1986).

In three of these studies, the religious practice of Catholic school Catholics was not compared with that of other Catholics. *Catholic Schools in Action* (Neuwien, 1966) and the NCEA study on low-income-serving schools (Benson et al., 1986) involved only students from Catholic schools.

Thompson (1982) did not report separately on religious practice for Catholic school students and students from CCD programs.

Almost all (96 percent) of the students in *Catholic Schools in Action* (Neuwien, 1966, p. 188) reported at least weekly Mass attendance and more than half (52.4 percent) indicated they attended Mass more than once a week. Girls more than boys, and elementary school students more than high school students, reported frequent attendance at Mass. Only 9 percent of the high school boys and 4 percent of the elementary school boys indicated they did not attend Mass every Sunday, compared with 3 percent of the high school girls and 2 percent of the elementary school girls (Neuwien, 1966, p. 189).

Thompson (1982, p. 55) found that 81 percent of the Catholic school and parish CCD 11th and 12th graders who took the Religious Education Outcomes Inventory of Knowledge, Aptitude and Practice (REKAP) during the two school years from 1979 to 1981 reported regularly attending Sunday Mass and 53 percent reported regularly praying by themselves. In the NCEA study on low-income-serving high schools (Benson et al., 1986), 55 percent¹⁴ of the students reported weekly Mass attendance, with freshmen more likely than seniors and white students more likely than black or Hispanic students to indicate they attended Mass weekly. In addition, 70 percent of the high school students in the NCEA study indicated they prayed by themselves at least once a week, 46 percent indicated they received Communion at least once a week, and 23 percent indicated they went to Confession at least once a month.

The studies that compared the religious practice of Catholics from Catholic schools with Catholics who did not attend Catholic schools consistently found that Catholics from Catholic schools were more regular in their religious practice. The most important and rigorous of these was the NCEA-sponsored *The Heart of the Matter*. Guerra, Donahue, and Benson (1990) found that Catholic seniors from Catholic high schools in the 1983-1985 sample from the *Monitoring the Future Project* reported more frequent church attendance than did the Catholic seniors from public schools. Furthermore, attendance at a Catholic school remained an important predictor of church attendance even when some family and personal background factors were statistically controlled.

Other studies had similar findings. Lenski (1963), for example, found that Catholics with more than half their education in Catholic schools tended to be more regular church attenders and more devotional than Catholics who attended public schools. Ferguson (1983) reported that of the Catholics attending a Catholic college in Buffalo, N.Y., 60 percent from Catholic high schools, compared with 49 percent from public high schools, attended weekly church services, and that the Catholic school graduates were more ready than the public school graduates to acknowledge the influence of their religion on their personal moral attitudes. In Ridder's (1986) study, Catholic high school graduates in Nebraska were more likely to go to Mass, pray privately, and attend retreats than Catholic graduates of Nebraska's public high schools.

Summary

Many factors, including societal norms, parental religiousness, and a personal sense of religiousness, influence the extent to which students practice their religion. However, a constant finding from the research was that Catholics who attended Catholic schools reported more regular practice of their religion than Catholics who attended other schools. The effects of Catholic school attendance remained, even when other factors were controlled and appear to have become over the years at least as important as parental religiousness in influencing the religious practice of young people.

The measures of religious practice used by studies included attendance at Mass, regular prayer, and reception of the sacraments. Catholics who attended Catholic schools reported higher rates of regular Mass attendance, both while still in school and as adults, than did Catholics who attended other schools. Furthermore, the influence of Catholic schools on religious practice of adolescents and adults progressively increased from the 1960's to the 1980's, a period during which a general decline occurred in the regular Mass attendance, not only of Catholic school students, but of the general Catholic population as well.

Religious Knowledge

Several studies involving Catholic schools (Benson et al., 1986; Greeley & Rossi, 1966; Greeley et al., 1976; Neuwien, 1966; Thompson, 1982) included measures of religious knowledge among their outcomes. Extensive examinations of the religious knowledge of elementary and secondary students occurred in *Catholic Schools in Action* (Neuwien, 1966) and in Thompson's (1982) analysis of the data from the *Religious Education Outcomes Inventory* (REOI) and the *Religious Education Outcomes Inventory of Knowledge, Attitudes and Practices* (REKAP).¹⁵ Both studies provided rich sources of information concerning the religious knowledge of young people, one at the time of the Second Vatican Council and the second some 20 years after the Council. However, since *Catholic Schools in Action* included only students from Catholic schools and Thompson combined the results from Catholic schools and CCD programs, neither study permitted the examination of the direct effects of Catholic schools on the acquisition of religious knowledge. The NCEA study on low-income-serving Catholic high schools (Benson et al., 1986) contained a brief measure of religious knowledge, but it also included only students from Catholic schools. On the other hand, the studies by Greeley permitted the best examination of the relative effectiveness of Catholic schools on the acquisition of religious knowledge.

Catholic Schools in Action

The measure of religious knowledge in *Catholic Schools in Action*, Part I of the Inventory of Catholic School Outcomes (ICSO), assessed the understanding of church law, church doctrine, and liturgy by the 14,519 8th and 12th graders in Catholic schools from selected dioceses around the country. For each item of the ICSO, the students selected from among five responses representing five different levels of understanding. Three levels, advanced, moderate, and conventional, represented a continuum from the newer emphasis in catechesis to a more traditional and more formalized emphasis. The two other responses, moralistic and nominalistic, were not "acceptable responses."¹⁶ In all, 56 percent of the students tested selected advanced or moderate responses, 32 percent selected conventional responses, and 12 percent selected moralistic and nominalistic responses. Thus, 88 percent of the students tested selected an "acceptable response." Furthermore, students did equally well on each of the three types of items: belief, moral teaching, and worship. As a group, girls in all-girls' high schools showed the best understanding of their religion, as indicated by the numbers who selected advanced responses. Although statistically significant, Neuwien (1966, p. 166) indicated that the difference between the performance of 8th graders and 12th graders was not as great as might have been expected, with the high school seniors having about 5 percent to 10 percent more advanced responses than the 8th graders.

REOI/REKAP

The analysis of REOI/REKAP by Thompson (1982) was more comprehensive than the analysis of religious outcomes in *Catholic Schools in Action* and made an important contribution to the

understanding of the religious knowledge of adolescents in Catholic schools and in CCD programs. The study, however, had only limited utility for examining the effects of Catholic schools since Thompson intentionally did not report the data separately for the students from Catholic schools and those from CCD programs, despite having the capability to do so. Thompson analyzed data from just over 6000 randomly-selected students who had taken the REOI (8th graders) and REKAP (11th and 12th graders) during the 1979 and 1980 school years. The 8th graders correctly answered about 64 percent of the questions on the REOI and the 11th and 12th graders correctly answered about 63 percent of the questions on the REKAP. On average, the 8th graders were the most knowledgeable on the themes of social justice, the sacraments, and prayer and spirituality and the senior high students on the sacraments, grace, and conscience and moral principles. The average student correctly answered over 70 percent of the questions on these themes. The themes for which the average student correctly answered fewer than 60 percent of the questions were Christian eschatology for the 8th graders, sexuality, prayer and spirituality, and social justice for the senior high students, and the church for both groups. For each theme on both inventories, however, the students were very knowledgeable about some questions and not about others. For example, on the REOI, 95 percent of the 8th graders correctly answered that Jesus came to save all people; however, only 31 percent correctly answered that faith comes as a free gift.

Thompson's study stands as a snapshot of the religious knowledge, as measured by a particular inventory, of students who have participated in religious education programs at a particular point in history. His findings undoubtedly continue to interest religious educators, but comparisons with other studies and any exploration of the relative effectiveness of school-based and parish-based religious education programs are not possible. A significant finding from Thompson's analysis concerned the role of the family in the religious socialization of young people. Students who discussed religious and moral matters with their parents were more likely to pray regularly, to have positive assessments about the benefits of knowing about Jesus Christ, and to affirm that their religious beliefs made a difference in the way they thought and acted in their everyday life than were students who did not interact with their parents in this way.

NORC Studies

The most systematic examination of the relationship between Catholic school attendance and religious knowledge occurred in the NORC studies. Greeley and Rossi (1966) included a brief test of religious knowledge and a doctrinal orthodoxy scale in their study. Catholic school attendance had a statistically significant association with performance on both of these measures. The test of religious knowledge contained six items measuring understanding of the Mystical Body, Eighth Commandment, Incarnation, grace, Judgment, and the papal encyclicals. Adults who were educated in Catholic schools were more likely to answer each item correctly than were adults not educated in Catholic schools. The number of correct answers ranged from 23 percent to 55 percent for adults whose entire education was in Catholic schools, 15 percent to 47 percent for those who had some of their education in Catholic schools, and 9 percent to 44 percent for those with none of their education in Catholic schools (Greeley & Rossi, 1966, p. 61). In the adolescent sample, 61 percent of those in Catholic high schools who also had attended Catholic elementary schools scored high on the religious knowledge index, compared with 20 percent of those with some Catholic school background, 2 percent of those who had not attended Catholic schools, 17 percent of those currently in CCD programs, and 11 percent of those currently in public high schools (Greeley & Rossi, 1966, p. 185, 190). Greeley and Rossi (p. 86) also found a moderately high relationship between attendance at Catholic school and religious knowledge, regardless of parental religiousness; however, the relationship was strongest for those whose parents were highly religious.

The six-item doctrinal orthodoxy scale used by Greeley and Rossi concerned the position of the pope, the existence of God, the punishment of evil, the Resurrection, the Modernist position that the form of worship is irrelevant, and the Pelagian theory that man can obtain salvation by his own efforts alone. Catholic schools did make a difference in the doctrinal orthodoxy of adults and adolescents. Catholics with their entire education in Catholic schools were more likely to give orthodox responses to items on this scale than were Catholics with some or none of their education in Catholic schools. On a reduced doctrinal orthodoxy scale of four items, 75 percent of adolescents with their entire education in Catholic schools scored high, compared with 57 percent of those with some education in Catholic schools, and 41 percent of those with no Catholic school experience (Greeley & Rossi, 1966, p. 185).

Greeley, McCready, and McCourt (1976), in the second of the NORC studies, eliminated the religious knowledge test and revised three of the items on the doctrinal orthodoxy scale. As with religious practice, a general decline in orthodoxy occurred from 1963 to 1974, as evidenced by the overall performance on the three items that remained unchanged from the first NORC study to the second NORC study. Similar to 1963, adult Catholics with 10 or more years in Catholic schools were, on average, more orthodox in their responses than adult Catholics with fewer or no years in Catholic schools; however, in 1974, the difference between the orthodoxy of Catholic adults with 10 or more years of Catholic education, compared to other Catholics, was about half⁷ of the difference in 1963 (Greeley et al., 1976, p. 212). In addition, Catholic adolescents with more than 10 years of their education in Catholic schools continued to be more orthodox in their responses than other Catholic adolescents.

Low-Income-Serving High Schools

The NCEA study on low-income-serving schools also included brief measures of the religious beliefs and Catholic orthodoxy of the students attending these high schools (Benson et al., 1986). With regard to religious beliefs, 88 percent of the freshmen and seniors surveyed selected a response that indicated belief in Jesus and his Resurrection, and 74 percent indicated definite belief in God, as opposed to an uncertain, agnostic, or atheistic response. Girls were more likely than boys to express each of these beliefs. In addition, 70 percent of the students appropriately endorsed an inspiration interpretation of scripture, while 22 percent endorsed a less appropriate, but not erroneous, inerrancy interpretation of scripture. Slightly less than half (49 percent) of the students agreed with an item designed to measure their understanding of papal primacy; however, the wording of the item may have misled some students.¹⁸ The Catholic orthodoxy scale in the NCEA study, similar to that used by Greeley (Greeley & Rossi, 1966; Greeley et al., 1976), contained items concerning belief in life after death, existence of God, Mary, existence of the devil, papal primacy, and specificity of worship. Benson and his associates reported a significant gender by grade interaction for the Catholic orthodoxy scale, with girls and freshmen generally more likely to give orthodox responses than were boys and seniors. The Catholic orthodoxy scale also had high correlations with views of religion that stressed: (1) prayer and the application of religion to all of life (intrinsic religion) ($r=.52$); (2) the freeing of oneself from the fears and anxieties of life (liberating religion) ($r=.44$); and (3) belief and ritual (vertical religion) ($r=.44$) (Benson et al., 1986, p. 101).

Other Religious Outcomes

In addition to religious practice and religious knowledge, some studies employed other measures of religiousness to examine the effects of Catholic schools. For example, Greeley (Greeley et al.,

1976) used a Catholicity factor, Benson (Benson et al., 1986) developed a faith commitment and church commitment composite, Convey (1983, 1984) analyzed a measure of religious self-evaluation from *High School and Beyond*, and Guerra (Guerra et al., 1990) included a measure of the importance of religion.

Greeley, in the 1974 NORC study, developed the Catholicity factor from measures of church attendance, personal devotion, organizational involvement, financial contributions, and doctrinal and ethical orthodoxy (Greeley, 1977, p. 171). Catholic school attendance was strongly associated with this Catholicity factor. The association was stronger in the 1974 NORC study than in the 1963 NORC study (Greeley et al., 1976), and remained strong in the 1979 NORC study (Fee et al., 1981). Catholics who attended Catholic schools, compared with other Catholics, scored higher on the Catholicity factor. In addition to attending Mass more regularly and to being more orthodox in doctrine, Catholics who attended Catholic schools were more likely than other Catholics to believe in life after death, join a parish organization, think about a possible vocation to the priesthood or religious life, and oppose abortion (Fee et al., 1981, p. 115). Furthermore, Greeley and his associates found that the apparent influence of Catholic schools on the religious outcomes represented by the Catholicity factor was especially strong for males, young people under 30, Catholics with very religious parents, and members of certain ethnic groups, in particular, Polish, Italian, and Spanish-speaking Catholics (Greeley et al., 1976).

In the NCEA study on low-income-serving schools, Benson (Benson et al., 1986) developed two composite variables, faith commitment and church commitment, to represent religious outcomes. Faith commitment was the average of over 25 items measuring the importance of religion, frequency of prayer, and various positive religious orientations. Church commitment was the average of eight items measuring attitudes toward the church. Freshmen scored higher than seniors on both measures of commitment, and girls were higher than boys on faith commitment. Characteristics of individual Catholic schools played an important role in the development of faith commitment and church commitment. When schools were used as the unit of analysis,¹⁹ alterable school variables, including the school's efforts to develop a faith community and the school's emphasis on religion, had a stronger influence on faith commitment, but not on church commitment, than did student characteristics and fixed school characteristics. When students were used as the unit of analysis, family background variables had the strongest influence on both faith commitment and church commitment; however, student morale and the school's emphasis on academics and religion significantly influenced both types of commitment.²⁰

Convey (1983, 1984) reported on the religious self-evaluations of Catholic sophomores and seniors from the base-year data of *High School and Beyond*. When asked to evaluate their own religiousness, the overwhelming majority of Catholic students regarded themselves as somewhat religious (70 percent), rather than very religious (12 percent) or not religious at all (18 percent). Catholic school Catholics, compared with Catholics who attended other schools, were slightly more likely to rate themselves as very religious (14 percent vs. 11 percent) and half as likely to rate themselves as not religious at all (10 percent vs. 20 percent). Overall, girls had slightly higher self-evaluations than did boys, and seniors had higher self-evaluations than did sophomores.

Convey's analysis did show a clear relationship between the religious self-evaluations and the religious practices of the students in *High School and Beyond* (see Table 4-9). Catholic school students who considered themselves very religious were slightly more likely to attend Mass weekly and over half as likely to attend Mass rarely than very-religious Catholic who attended other high schools. Moreover, Catholic school students who considered themselves not religious

at all were almost twice as likely to attend Mass weekly and less likely to attend Mass rarely than were not-at-all-religious Catholics who attended other high schools.

In the NCEA-sponsored *The Heart of the Matter* (Guerra et al., 1990), Catholic seniors in Catholic schools viewed religion as more important in their lives than did Catholic seniors who attended public schools. Furthermore, the importance of religion increased for Catholic school seniors over the 10-year period included in the study. Guerra and his associates also found that the importance of religion was a significant predictor of the students' concern for others, church attendance, and their favorable attitudes toward the church, school, and marriage.

VALUE OUTCOMES

A Catholic school is a faith community that teaches religious and academic subjects in a value-oriented context. Indeed, the specific mission of the Catholic school is to bring into harmony faith, culture and life.²¹ Since the teaching of values²² is an explicit objective of the Catholic school, both the curriculum and the environment of the Catholic school are designed to help students to internalize values (Kealey, 1986). Instruction in Christian values is an integral part of the program of the Catholic school, not only during the time set aside for the teaching of religion, but also in all classes. As Kealey (1985, p. 15) notes:

"All classes provide students with the opportunity to examine [values] and to reflect on [their] meaning in their daily lives. As the teacher teaches a skill to help students learn the content, so the content is designed to move students to act in a particular way. The teacher also provides opportunities for students to act in ways consistent with their values."

What are values and how do they develop? The term "value" comes from the Latin "valere," meaning to be strong and vigorous. Buetow (1988) acknowledged that values are difficult to define; however, most theorists would agree that values are principles, standards or qualities that a person considers to be worthwhile and desirable. Valuing involves the intellect perceiving "a good" and presenting it as such to the will and the will, in turn, accepting the perceived good as desirable (McLean, Ellrod, & Schindler, 1986). A value is formed after a person responds to "the good," finds satisfaction in his or her response, accepts the good, and develops a preference for it and a commitment to it. The value is then organized into a structure arranged hierarchically, which means that one value occupies a more important place within the structure than does another value.

A person's values are influenced by his or her culture, heritage, and environment — family, school, peers, community, etc. (Hermans, 1976; McLean et al., 1986; McLean & Knowles, 1986). While theorists readily acknowledge that values are formed largely by interactions that occur in the home, the school plays an essential role in value development. Research shows the importance of the school's reinforcement of the discipline, standards and norms of the family (Berger, 1985; Bohm, 1980).

The communication of values is at the very essence of education. Every school is a moral enterprise in that a school's content and method reflect, at least implicitly, recommendations concerning values (Johnson, 1987). Wide agreement exists that values are part of learning and that value issues infuse every classroom (Buetow, 1988;Sizer, 1984). The process of schooling involves not only

the communication of facts and skills, but also the induction into some set of norms of behavior, beliefs, and values (Grant, 1981). Teachers are role models and thereby, intentionally or not, transmit value orientations. Because of the special relationships between teachers and their students, the values that a teacher espouses, models, and reinforces stand a good chance of enduring.

Family Values

A constant theme in the research on Catholic schools is the affirmation by Catholic school students of the importance and priority of values relating to the family. The questions asked of students in the studies that examined family values typically concerned the students' attitudes toward marriage, children, the qualities of future spouses, the importance of maintaining family ties, their relations with their parents, and the importance of living close to their parents. Students in Catholic schools generally placed such family values high in their hierarchy of values, ordinarily higher than other potential life goals and, in particular, higher than materialistic goals that equated success in life with having a good job and making a lot of money (Benson et al., 1986; Convey, 1983; Kraushaar, 1972; Neuwien, 1966).

The vast majority of the research on Catholic schools and family values has involved only high school students. In the only study to date that included Catholic elementary schools, *Catholic Schools in Action*, high school students (61 percent) were more likely than were elementary school students (49 percent) to strongly agree that family ties were more important than money to success in life (Neuwien, 1966).

A number of consistent findings have characterized the research on family values and Catholic schools. First, students from Catholic schools generally espoused family-related values to a greater extent than did students from other schools (Convey, 1983; Greeley & Rossi, 1966; Guerra et al., 1990; Kraushaar, 1972; Rock et al., 1986). Furthermore, this predominantly Catholic school effect remained when studies controlled for the effects of religion by including only Catholic students (Convey, 1983; Greeley & Rossi, 1966; Guerra et al., 1990) and by accounting for differences in family background (Guerra et al., 1990).

In his extensive study on private schools, Kraushaar (1972) found that high school juniors in Catholic schools were more likely than their counterparts in independent schools to select a marriage and family life goal as one of their two most important priorities; however, the Catholic school students were much less likely than students from Protestant private schools to select this same goal, despite the sample from the two types of schools having approximately the same ratio of females to males. Although important because of its scope, the descriptive nature of Kraushaar's study limited its utility as evidence for the presence of a Catholic school effect.

In *High School and Beyond*, students from Catholic schools, compared with students in public schools, placed a much higher priority on having children and living close to their parents, a slightly higher priority on finding the right person to marry, and a much lower priority on moving away from the area (Rock et al., 1986). Convey (1983) found that the Catholic school advantage persisted when only Catholic students were included; that is, Catholics who attended Catholic schools placed a higher priority on family-related values than did Catholics who attended public schools.

Other studies have found that graduates of Catholic schools were more orthodox in their values

concerning marriage and the family than were Catholics who did not attend Catholic schools. Greeley and Rossi (1966) found that the amount of education in Catholic schools for the adults in their study was related, although fairly weakly, to some marriage and family outcomes. Catholics with all of their education in Catholic schools were more likely to have been married by a priest and to expect to have more children than Catholics with only part or none of their education in Catholic schools. In *The Heart of the Matter*, Guerra et al. (1990) found that Catholic seniors from Catholic schools, to a greater degree than Catholic seniors from public schools, subscribed to certain "pro-marriage" attitudes, measured by the students' willingness to reject marriage and family values that were counter to the teaching of the church.

A potentially serious threat to the internal validity of these studies, which refers to their ability to attribute the differences in value orientations to the type of school attended, was their lack of control for the family backgrounds of the students. The notable exception was *The Heart of the Matter*, in which Guerra and his associates controlled for several family background measures (proportion of two-parent families, mother working while students were growing up, and parents' education) and found that the type of school attended was an important predictor of pro-marriage attitudes. However, the type of school attended by no means sufficiently explained the differences in the students' family orientations. Guerra et al.'s (1990) findings that the Catholic school seniors reported that their parents' education was higher, that it was less likely that their mothers worked when they were growing up, and they were more likely to come from two-parent families indicated that the Catholic students were more likely to come from families that traditionally hold higher family values.

Second, the research revealed a strong gender effect. Girls were more inclined than boys to place a priority on such items as having a happy marriage, living close to parents, finding the right spouse, and having children (Bryk et al., 1984; Rock et al., 1986). Like the school effect, the gender effect remained even when religion was controlled; that is, Catholic girls generally scored higher on family orientation measures than Catholic boys (Benson et al., 1986; Convey, 1983; Guerra et al., 1990; Neuwien, 1966).

Third, the importance of family values was related to the religiousness of the student. For example, in *High School and Beyond*, students who were more religious demonstrated a higher family orientation than did students who were less religious (Bryk et al., 1984), even when the religious background of the students was controlled by using only Catholic students (Convey, 1983).

On the other hand, the research involving the relationship between the student's racial/ethnic background and his or her family values has been inconclusive. In the NCEA study on low-income-serving schools, the family value orientations of students were unrelated to the racial/ethnic background of the students. Benson et al. (1986) found that black, white, and Hispanic students were equally likely to view the family in positive terms. However, the data from *High School and Beyond* (see Table 4-10) revealed that a lower percentage of black students in Catholic schools, as sophomores in 1980 and as graduates in 1984, compared with white and Hispanic students, gave "very important" ratings to the various family-related values.

Social Values

A number of studies involving Catholic schools have included some measure of what might be called social values. One such measure was a general index of concern for others. *Catholic Schools*

in Action contained several questions regarding the necessity of helping others. In their responses to these questions, most students demonstrated high levels of concern for others. Overall, girls showed more concern for others than did boys, and elementary school students showed more concern than did high school students (Neuwien, 1966). In Kraushaar's (1972) survey, almost half the students from Catholic high schools selected "working for the improvement of society and the benefit of others" as one of their two most important life goals. This finding, and the even higher proportion of students from Protestant private schools who selected this goal, led Kraushaar to remark that students in church-related schools appeared to be somewhat more altruistically inclined than the independent school students who were more status- and success-oriented (Kraushaar, 1972, p. 129).

In *The Heart of the Matter*, Guerra, Donahue, and Benson (1990) analyzed the results of several items assessing concern for people. One set of items directly assessed concern for others by asking students whether they rejected attitudes that reflected a self-centered and selfish point of view. Catholic seniors from Catholic schools rather than Catholic seniors in public schools, and girls rather than boys, were stronger in their rejection of these attitudes. Once demographic variables and the importance of religion were controlled, the students from Catholic schools were more likely than students from other schools to acknowledge the importance of making a contribution to society as a way of making a difference in life. Finally, girls more than boys felt it was important that their careers offer opportunities to be directly helpful to others.

The students in the NCEA study of low-income-serving schools, however, did not accord similar measures of concern such a high priority (Benson et al., 1986, p. 85). Of the 16 life goals that the students rated in importance, four goals reflected a concern for others: "help other people have a better life"; "do what I can to promote peace"; "do what I can to help people overcome hunger and poverty"; and "help rid the world of social injustice." Based on the proportion of very important ratings, these goals ranked 10th, 13th, 14th, and 16th, respectively, in relative importance for the students. Consistent with a healthy personality and Maslow's (1970) hierarchy of needs, the goals that received the highest proportion of very important ratings dealt with the students' own lives: "have a happy family life"; "get a good job"; "be happy"; "have God at center of my life"; and "feel good about myself." However, compared with the life goals of concern for others, the higher priority accorded to two rather hedonistic life goals was somewhat disconcerting, although perhaps understandable considering the age of the students and the individualism that was rampant in the 1980's. The students ranked "have a lot of money someday" as 9th in importance and "have lots of fun and good times" as 11th in importance. The lower rankings of the life goals of concern for others, however, did not necessarily imply that all or even the majority of the students in the low-income-serving schools lacked concern for the welfare of others. For example, more than half the students indicated their willingness to make financial sacrifices to help the poor in other countries (Benson et al., 1986, p. 89).

A second measure of social values concerned community involvement and leadership. Greeley and Rossi (1966) found little difference in the community involvement, measured by community activity and interest in community affairs, of students with different amounts of Catholic schooling, so much so that Greeley and Rossi argued that no evidence of social consciousness among Catholic school students was present. Although Guerra and his associates (Guerra et al., 1990) found that Catholic seniors from Catholic high schools indicated they participated in community affairs and volunteer work more than did Catholic seniors from public high schools, most students indicated low participation. With regard to leadership, Convey's (1983) analysis of the interest in leadership by Catholics in Catholic schools, compared with Catholics who

attended other schools, showed mixed results. Catholic males attending Catholic schools attached greater importance to community leadership than did Catholic males in other schools; however, Catholic females in Catholic schools, particularly seniors, attached less importance to community leadership than did their counterparts in other schools. Likewise, Catholics who graduated from a Catholic school²³ were more likely than Catholics who graduated from a public school to say being a community leader was very important. Also, Catholic boys were almost two times more likely than Catholic girls to express this view, despite the fact that girls tended to score higher on the overall community orientation index (Bryk et al., 1984).

A final measure of social values, used by some studies on Catholic schools, concerned two different aspects of social justice. The first included attitudes toward gender and racial equal opportunity. Most Catholic school students, and girls more than boys, rejected sexism and endorsed equality for men and women with regard to pay and career opportunities (Benson et al., 1986; Guerra et al., 1990). Guerra et al. (1990) also found high support for equal opportunity for men and women by Catholics who attended public schools. In the low-income-serving schools studied by Benson (Benson et al., 1986), black and Hispanic students were more likely than were white students to endorse equal opportunity for members of both genders.

With regard to individuals from different racial and ethnic backgrounds, the support of Catholic school students for equal opportunity varied from study to study, perhaps partly a function of exactly what questions the students were asked to answer. In *Catholic Schools in Action*, between a half and two-thirds of the students rejected prejudicial statements concerning blacks; however, enough of the students responded in an apparently prejudicial manner to prompt Neuwien (1966, p. 223) to challenge the leadership of Catholic schools to examine how the schools presented the principles of racial equality. About the same time, Greeley and Rossi (1966) found that Catholic school students and adults who had attended Catholic schools did not differ in their racial attitudes from Catholics who did not attend Catholic schools; however, sadly, only about one in four of the Catholics interviewed responded in an unbiased manner to statements measuring their racial attitudes. Later surveys (Fee et al., 1981; Greeley et al., 1976; Guerra et al., 1990) revealed that Catholics educated in Catholic schools improved in their racial attitudes; however, still only about half the students in the NCEA study on low-income-serving Catholic schools (Benson et al., 1986) rejected statements that represented racial prejudice. On the whole, the research indicated that more racial prejudice was found among boys than girls (Benson et al., 1986; Guerra et al., 1990; Neuwien, 1966), and among students from families of lower social class and less education than from families of high social class and more education (Benson et al., 1986; Greeley & Rossi, 1966; Greeley et al., 1976; Neuwien, 1966).

The second aspect of social justice concerned sentiments toward actually working to correct social and economic inequalities as a life goal. The data available to examine this aspect of social justice were gathered from high school students from 1980 to 1985, as part of several different studies. Most students in these studies, including those in Catholic high schools, assigned a very low priority to working to correct inequalities.²⁴ In particular, these studies indicated that: (1) fewer than half of all seniors (Benson et al., 1986) and only about one of every 12 students (Thompson, 1982) who attended Catholic high schools reported actually working on a social service project in school;²⁵ (2) almost half of the male Catholic seniors in Catholic schools from the base year of *High School and Beyond* responded that working to correct social and economic inequalities was not important (Convey, 1983, 1984); (3) Catholic seniors not in Catholic high schools, especially girls, gave higher priority to correcting inequalities than did Catholic seniors in Catholic high schools (Convey, 1983, 1984); (4) minority students, especially blacks, were more likely to rate

working to correct inequalities as very important than were white students (see Table 4-11); (5) the life goals of "help people overcome hunger and poverty" and "help rid the world of social injustice" were ranked 14th and 16th, respectively, in importance out of 16 possible goals by the students in the NCEA study on low-income-serving Catholic schools (Benson et al., 1986); (6) no evidence existed that attending a Catholic high school had any influence on Catholics regarding their willingness to work to correct inequalities (Guerra et al., 1990); and (7) male graduates of single-sex Catholic high schools were less likely than those who graduated from coed Catholic high schools to show a concern for social justice, whereas graduates of all-girls' Catholic high schools showed somewhat more concern for social justice than did graduates of all other Catholic schools (Lee & Marks, 1990).

The low priority which Catholic school students assigned to social justice issues is disheartening in light of the emphasis that Catholic high schools place on the topic of social justice. One of the important goals of religious education in Catholic schools is to make the students more sensitive to injustice and more committed to improving the welfare of those less fortunate than they (Yeager et al., 1985). Indeed, in *The Catholic High School: A National Portrait* (Yeager et al., 1985, p. 68-69), 93 percent of Catholic high school principals claimed that the social teachings of the church informed their school's philosophy, goals, or yearly objectives. In addition, the principals reported that the following changes had been made in the previous five years to reflect better the church's social doctrines: (1) addition of service projects (81 percent); (2) development of activities that infuse justice-related values, concepts, and skills into the curriculum (71 percent); (3) addition of new courses (70 percent); and (4) staff development programs on the social teachings of the church (69 percent).

Teachers in Catholic high schools also, for the most part, promoted the development of appropriate social justice attitudes in their students and thought their schools were doing a good job in emphasizing social justice. However, helping to work for social justice was among the top priorities in the personal lives of only a minority of the teachers. More than half the teachers indicated that helping students develop a commitment to promoting social justice and encouraging students to participate in service projects were extremely important or very important goals (Benson & Guerra, 1985), and slightly less than half the teachers indicated they frequently or very frequently talked in their classrooms about social justice²⁶ (Benson et al., 1986). Again, over half the teachers thought their schools were doing at least a good job and, in some cases, an outstanding job, in presenting the church's teaching on important social issues and in helping students understand that mature religious faith includes the commitment to social justice; however, less than half thought their schools were doing a good job in developing an understanding of the structural roots of injustice (Benson et al., 1986). Finally, only about one in 10 teachers indicated that helping to promote economic and social justice, combat racism, and promote world peace were extremely important priorities in their personal lives (Benson & Guerra, 1985).

Based on the results of these studies regarding social values, Catholic schools should increase further their efforts to teach the principles of social justice and to help their students be more oriented toward community service. The American bishops have emphasized that one measure of the effectiveness of a Catholic school is its ability to enable its students "to address with Christian insight the multiple problems which face individuals and society today" (National Conference of Catholic Bishops, 1972, p. 29).

Predictors of Value Orientations

What does research indicate are the important predictors of students' value orientations? Three predictors stand out: the involvement of parents with their children, students' religious practice, and students' sense of personal religiousness.

The involvement of parents with the school and with their children is one important predictor of the value orientations of students. When parental involvement was high, students in *High School and Beyond* reported stronger sense of personal control, more positive self-concepts, and stronger family and community orientations (Bryk et al., 1984). In addition, other studies have found that the quality of family life was an important predictor of family values and concern for others (Benson et al., 1986; Neuwien, 1966).

The extent of their religious practice and their sense of personal religiousness are two other important predictors of the value orientations of students (Benson et al., 1986; Bryk et al., 1984; Convey, 1984; Neuwien, 1966). Catholic students in *High School and Beyond*, for example, who reported higher levels of religious practice or religious self-evaluation attached more importance to living close to parents and relatives, being a leader in the community, working to correct social and economic inequalities, and having children, and attached less importance to having a lot of money than did students who reported lower levels of religious practice (Convey, 1984). Values that are expected to be universally shared — finding the right spouse and having a happy family life, providing children with better opportunities, being successful in work, finding a steady job, and having strong friendships — were not as strongly related to religious practice and religious self-evaluations.

How much of the differences in family orientation and family-related values can be attributed to the student's family background? Certainly some, and perhaps a large amount. Parents who send their children to Catholic schools are likely to do so because they subscribe to the value system promoted by the school which, in all likelihood, agrees closely with their own values. Presumably, these same parents place a high priority on family. Some evidence bears this out. For example, Bryk et al. (1984) found that parental involvement with their children and their children's schools was an important predictor of the family orientation composite in *High School and Beyond*. However, some effect undoubtedly is due also to the school. Similar to Greeley's finding that Catholic schools were particularly effective in developing the religious knowledge of students from religious families, his contention of the "multiplier effect," referred to in Chapter 2, so too it is likely that Catholic schools are most effective in assisting in the development of values of students who come from families that already have done much to form the values of their children.

SUMMARY

1. The research reviewed in this chapter demonstrates that Catholic schools have been instrumental in producing high quality academic, religious, and value outcomes. While it is not possible to determine the extent of the schools' contributions to student outcomes nor to eliminate the possibility that the effects result from a selective student body or from other factors not related to school, the preponderance of evidence suggests that a Catholic school effect not only exists, but, in some cases, is considerable.
2. The results of national and local studies show that children from Catholic schools outperform

children from public schools on standardized achievement tests. The most convincing, as well as the most public, evidence of the better performance on achievement tests of Catholic school students, compared with public school students, came from a series of studies based on data from three national databases, the *National Assessment of Education Progress*, the *National Education Longitudinal Study of 1988*, and, particularly, *High School and Beyond*. In addition, compared with public schools, Catholic schools have lower dropout rates, higher rates of college attendance, and higher rates of completing college for those students who enter college. Moreover, the effects of Catholic schools are particularly strong for students who are typically disadvantaged: minority students and those from families with low educational levels and/or low incomes.

3. The results of the research of Greeley and his colleagues demonstrate that the importance of Catholic schools to the religious practices and knowledge of Catholic adults increased precisely during the time that fewer Catholic children were attending Catholic schools. The relationship between attendance at a Catholic school and various measures of religious attitudes, knowledge, and behaviors increased from the 1960's to the 1980's. Other studies show that Catholic students in Catholic high schools are more likely than Catholic students in public high schools to attend Mass regularly, view religion as more important in their lives, and have higher religious self-evaluations.

4. Catholic school students generally place family-related values high in their hierarchy of values, ordinarily higher than other potential life goals, and, in particular, higher than materialistic goals that equate success in life with having a good job and making a lot of money. The importance of family values is related to the student's religiousness and is higher for girls in Catholic schools than for boys.

5. Despite very encouraging findings in the areas of social values and social justice, the research indicates that improvement is needed in some areas. Catholic school students generally demonstrated concern for others: they rejected attitudes that reflected a self-centered viewpoint and they were more likely than were other students to acknowledge the importance of making a contribution to society. Most Catholic school students endorsed equal career opportunities and compensation for men and women, and the racial attitudes of Catholic school students have consistently improved. However, enough students in Catholic schools failed to reject statements that represented racial prejudice and placed such a low priority on working to correct social and economic inequalities to warrant concern among Catholic educators.

6. Finally, although the religious behaviors and value orientations of Catholic school students often are related to the religiousness of their parents, the research suggests that attending a Catholic school has a measurable effect on the behaviors and values of students, over and above the influence produced by parental religiousness.

Table 4-1: Catholic School Advantage on Standardized Tests

Source	Test	Grades	Average Advantage
Lennon (1948)	Metropolitan Achievement	2-5 6-9	Less than .25 GE .24 to 1.00 GE
Bauernfeind & Blumenfeld (1963)	SRA High School Placement	8 8	1959: 1.00 GE 1960: .5 GE
Neuwien (1966)	Stanford Achievement	1-8	.5 to 1.00 GE, except 2nd grade
Neuwien (1966)	Metropolitan High School Battery	12	Mean Percentile: 55-79
Walsh et al. (1969)	SRA Achievement	2,4,7	.16 to .56 GE (raw scores) .15 to .31 GE (adjusted scores)
Walsh et al. (1969)	Differential Aptitude Test	10	.9 to 1.4 SD, except for Numerical Ability
Morton (1979)	Iowa Test of Basic Skills	4 8	.2 to .3 GE .4 to 1.1 GE
Coleman, Hoffer & Kilgore (1982)	High School & Beyond	10 12	.29 to .50 SD (1980 Sophomores) -.06 to .41 SD (1980 Seniors)
Bryk et al. (1984)	High School & Beyond	12	.49 SD (Composite of Vocabulary, Reading, and Math-1982 Seniors)
Lee (1985)	NAEP Reading (0-500)	4,8,11	7.8, 10.5, 10.2 units
Lee (1987)	NAEP Writing (1-4)	4,8,11	.05, .07, .06 units
Coleman & Hoffer (1987)	High School & Beyond	12	.26 to .56 SD (1982 Seniors)
Lee & Stewart (1989)	NAEP Math NAEP Science (0-500)	3,7,11 3,7,11	8.5, 14.5, 10.9 units 9.3, 15.7, 10.9 units
Marks & Lee (1989)	NAEP Reading (0-100)	3,7,11	2.2, 4.8, 4.4 units
Rock & Pollack (1990)	NELS:88	8	.18 to .42 SD

Note: GE = Grade Equivalent Units;
SD = Standard Deviation Units

Table 4-2: Comparison of Catholic Schools with Public Schools and National Averages on the National Assessment of Educational Progress

		Writing 1983-1984		
		4th	8th	11th
Catholic Schools		1.63	2.12	2.25
National Average		1.58	2.05	2.19
		Reading 1983-1984		
		4th	8th	11th
Catholic Schools		225.3	271.2	299.5
National Average		217.5	260.7	289.3
		Reading 1985-1986		
		3rd	7th	11th
Catholic Schools		40.1	53.2	60.0
Public Schools		37.9	48.4	55.6
		Mathematics 1985-1986		
		3rd	7th	11th
Catholic Schools		220.1	280.1	313.6
Public Schools		211.6	265.6	302.7
		Science 1985-1986		
		3rd	7th	11th
Catholic Schools		221.0	262.5	300.5
Public Schools		211.7	246.8	289.6

Sources: Lee (1985, 1987); Lee & Stewart (1989); Marks & Lee (1989).

Table 4-3: Comparison of Catholic Schools and Public Schools on NELS:88 by Quartiles and by Mean Differences

	1st Quartile	2nd Quartile	3rd Quartile	4th Quartile	Mean Difference
Social Studies					
Catholic Schools	12.6%	21.0%	31.3%	35.1%	.42
Public Schools	27.1%	25.1%	25.0%	22.8%	
Reading					
Catholic Schools	13.8%	23.1%	28.2%	34.9%	.38
Public Schools	27.7%	25.6%	23.7%	23.0%	
Mathematics					
Catholic Schools	16.9%	24.7%	28.6%	29.7%	.22
Public Schools	26.8%	25.6%	23.7%	23.8%	
Science					
Catholic Schools	17.2%	25.3%	31.3%	26.1%	.18
Public Schools	27.2%	24.3%	25.2%	23.4%	

Sources: Rock & Pollack (1990); Snyder (1989).

Table 4-4: Average Scores for 1980 Sophomore Cohort from *High School and Beyond* as Sophomores and as Seniors

	10th	12th	Gain
Vocabulary (21 items)			
Catholic Schools	13.08	15.18	2.10
Public Schools	11.05	12.80	1.75
Reading (19 items)			
Catholic Schools	10.69	12.03	1.34
Public Schools	9.28	10.29	1.01
Mathematics (38 items)			
Catholic Schools	22.10	24.49	2.39
Public Schools	19.14	20.60	1.46
Science (20 items)			
Catholic Schools	12.09	12.95	0.93
Public Schools	11.19	11.98	0.79
Writing (17 items)			
Catholic Schools	12.12	13.58	1.46
Public Schools	10.49	11.80	1.31
Civics (10 items)			
Catholic Schools	6.61	7.44	0.83
Public Schools	5.92	6.76	0.84

Source: Coleman & Hoffer (1987, p. 65).

Table 4-5: Percentage of 1980 Seniors from *High School and Beyond* Enrolled Full Time in a Four-Year College before Spring 1982, by Gender and High School Program

	Public	Catholic	Other Private
Gender			
Male	28.2%	51.4%	60.3%
Female	31.1%	50.5%	51.9%
School Program			
Academic	57.4%	63.3%	69.5%
Nonacademic	15.4%	21.5%	23.1%

Source: Coleman & Hoffer (1987, p. 154).

Table 4-6: Effects of Number of Years of Catholic Schooling on Selected Religious Practices of Young Catholics Between 14 and 29 Years of Age

	Over 8 Years of Catholic School	8 Years or Fewer of Catholic School	Correlation With Years of Catholic School
Mass Attendance (almost weekly)	43%	32%	.10
Communion (almost weekly)	32%	17%	.16
Prayer (several times a week)	57%	53%	.05
Belief in Life After Death	72%	60%	.12
Member, Parish Organization	13%	5%	.15
Thought of Vocation	12%	6%	.16
Opposed to Abortion	64%	50%	.13
"Catholicity" Scale			.25

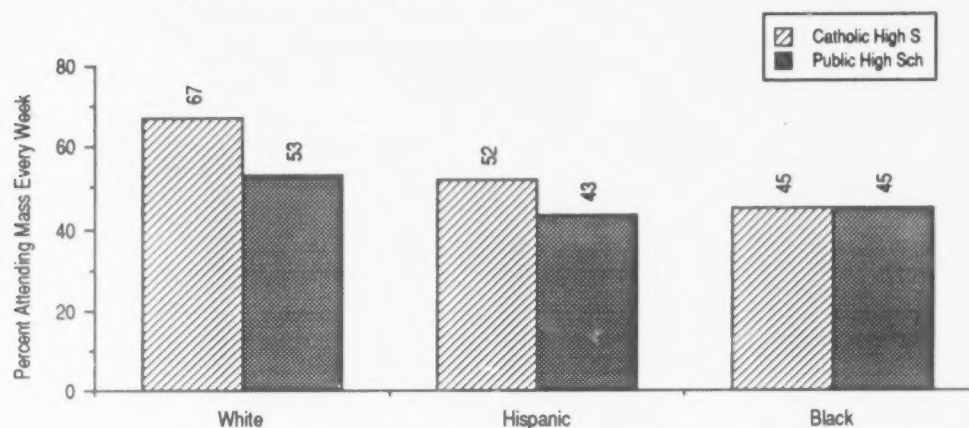
Source: Fee et al. (1981, pp. 115, 117, 122).

Table 4-7: Attendance at Religious Services Reported by Catholic Students in *High School and Beyond*, 1980

	Sophomores		Seniors	
	Males	Females	Males	Females
	Catholic Schools			
At Least Weekly	70%	66%	59%	62%
At Least Monthly	16%	18%	19%	18%
Rarely or Never	13%	16%	22%	20%
	Other Schools			
At Least Weekly	43%	52%	44%	53%
At Least Monthly	19%	17%	16%	18%
Rarely or Never	39%	32%	40%	29%

Source: Convey (1983, p. 19), from *High School and Beyond Base-Year Data*.

Table 4-8: Percentage of Catholic Students by Race/Ethnicity in *High School and Beyond* who Reported Attending Mass Every Week



Source: Greeley (1982, p. 54).

Table 4-9: Reported Religious Practice by Catholic Students in *High School and Beyond* at Each Level of Religious Self-Evaluation

		Religious Practice		
		Weekly	Monthly	Rarely
		Catholic Schools		
		Very Much	80%	12%
Religious Self-Evaluation	Somewhat	65%	18%	17%
	Not At All	32%	23%	45%
	Other Schools			
	Very Much	73%	7%	20%
	Somewhat	52%	20%	28%
	Not At All	17%	13%	70%

Source: Convey (1983, p. 20).

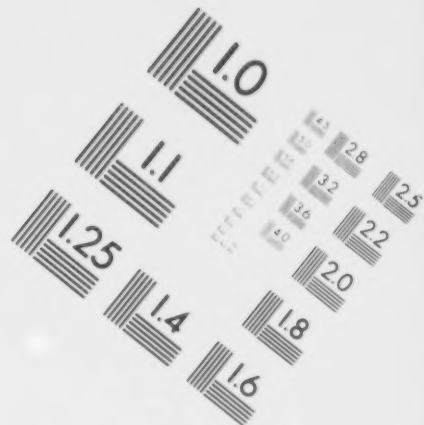
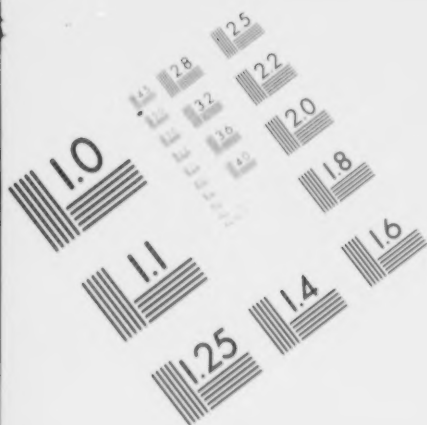


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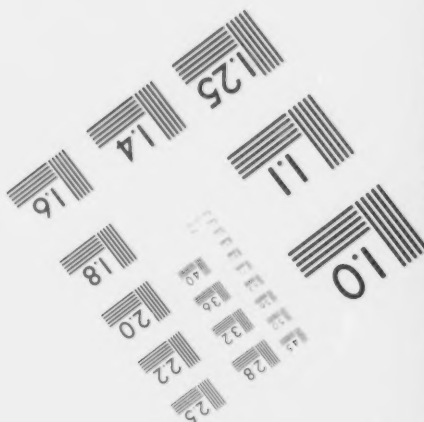
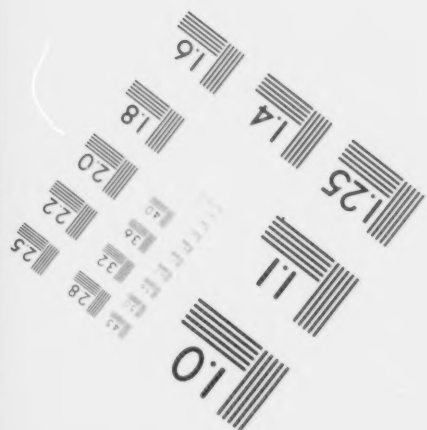
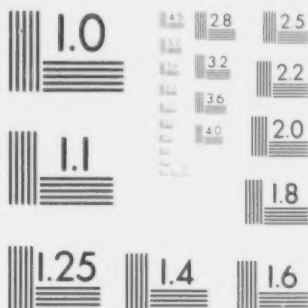
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Table 4-10: Percentage of Catholic School Students in *High School and Beyond* who Rated Various Family-Related Values as Very Important

	Happy Family		Live Close to Parents		Get Away From Area		Have Child	
	Male	Female	Male	Female	Male	Female	Male	Female
As Sophomores - 1980								
White	81%	80%	20%	26%	12%	9%	44%	52%
Black	75%	78%	15%	18%	14%	8%	30%	40%
Hispanic	83%	83%	28%	26%	10%	13%	46%	48%
As Seniors - 1982								
White	83%	83%	15%	20%	13%	8%	42%	54%
Black	83%	75%	12%	10%	9%	15%	64%	70%
Hispanic	81%	83%	18%	18%	10%	7%	70%	68%
As Graduates - 1984								
White	85%	89%	17%	22%	8%	7%	47%	64%
Black	79%	79%	11%	16%	13%	16%	37%	53%
Hispanic	82%	89%	14%	26%	9%	10%	53%	64%

Source: Previously unpublished data from the 1980 High School and Beyond Longitudinal Sophomore Cohort.

Table 4-11: Percentage of Students in *High School and Beyond* who Rated Correcting Inequalities as Very Important

	Catholic Schools		All Schools	
	Males	Females	Males	Females
As Sophomores - 1980				
White	9%	13%	11%	12%
Black	19%	25%	21%	21%
Hispanic	13%	18%	18%	18%
As Seniors - 1982				
White	9%	10%	8%	9%
Black	23%	25%	18%	21%
Hispanic	8%	11%	14%	14%
As Graduates - 1984				
White	10%	10%	10%	11%
Black	16%	27%	25%	23%
Hispanic	15%	17%	18%	16%

Source: Previously unpublished data from the 1980 High School and Beyond Longitudinal Sophomore Cohort.

ENVIRONMENT

The literature on school effectiveness, which had been developing since 1966 with the publication of *Equality of Educational Opportunity* (Coleman et al., 1966), took a dramatic turn in the late 1970's when studies began to identify organizational factors that regularly were found in effective schools. Effective schools have, among other attributes, commonly-shared goals, high expectations for students, a strong sense of community, and a strong academic emphasis (Anderson, 1982; Brookover et al., 1979; Bryk & Driscoll, 1988; Chubb & Moe, 1988; Edmonds, 1979; Lightfoot, 1983; Purkey & Smith, 1983; Rutter et al., 1979; Wynne, 1980). Effective schools structure their academic programs so that instructional objectives, content, and activities are carefully aligned for the purpose of meeting agreed-upon goals. Effective schools possess a strong academic and communal ethos that enable them to make greater demands on their students and achieve better results than do less effective schools (Grant, 1982; Rutter et al., 1979). In addition, such schools are able to reduce the effects of differences in the backgrounds and interests of students to achieve desired results (Bryk et al., 1984; Coleman et al., 1982; Lee & Bryk, 1988; Rutter et al., 1979). As such, these schools are particularly effective for disadvantaged children (Coleman et al., 1982; Coleman & Hoffer, 1987; Edmonds, 1979; Greeley, 1982).

Catholic schools often are used as examples of effective schools, and many of the attributes of effective schools were developed and confirmed in studies involving Catholic schools. Research has identified the importance of the environment or climate of Catholic schools to their effectiveness. Some important topics concerning the climate of Catholic schools are: (1) the school as community; (2) differences in the cultures of Catholic schools and public schools; (3) emphasis on academics; (4) emphasis on discipline and order; and (5) development of the faith community.

SCHOOL CLIMATE

Research has shown the importance of the "climate," "ethos," or "culture" of the school as a significant contributor to its effectiveness (Cusick, 1983; Grant 1981, 1982, 1985; Hannaway & Abramowitz, 1985; Lightfoot, 1983; Lipsitz, 1984; Metz, 1986; Purkey & Smith, 1983, 1985; Rutter et al., 1979). What is meant by these terms and why are they important?

According to Anderson (1982), climate is more general than culture. School culture refers to the common set of values, beliefs, and practices held by various groups within a school. In addition to its culture, a school's climate includes its ecology, milieu, and social system. Ecology refers to the school's physical and material traits, such as its size, the features of its building, and its facilities. Milieu pertains to the characteristics of the people in the school: the administrators, teachers, and students. The school's social system denotes the relationships among its administrators, teachers, and students.

In her extensive review of the literature on school climate, Anderson (1982) found that certain variables associated with the school's milieu and its social system, and virtually every variable

associated with the school's culture, had an influence on student outcomes. The significant milieu variables are teacher morale and student morale. The quality and type of relationships of teachers with administrators, students, and other teachers, and teacher-shared decision-making are important social system variables related to outcomes. The most prominent cultural variables are consensus on school goals, emphasis on academics, high expectations for teachers and students, teacher commitment, and the norms and values of the students, which, as Anderson noted, are influenced to a considerable extent by the students' families.

Purkey and Smith (1983, 1985) used effective schools as the basis for their literature review. They arrived at basically the same conclusion as Anderson: the school's culture heavily influences the academic success of students. Purkey and Smith identified 13 characteristics of schools that are likely to have an impact on student outcomes. They argued that nine¹ of these characteristics facilitate the development of the other four, which really are the most important ones. These four characteristics, all related to the culture of the school, are: (1) collaborative planning and collegial relationships; (2) sense of community in the school; (3) commonly-shared goals and high expectations; and (4) order and discipline.

Ethos is yet another term used by some researchers to describe the school's culture and climate. Rutter's *Fifteen Thousand Hours* (Rutter et al., 1979), a study of secondary schools in England, was a landmark study of the importance of school variables in educational achievement. Rutter and his associates were, perhaps, the first to use the term "ethos" in describing the school's environment. For Rutter, the factors that contribute to the establishment of the school's ethos are its history, tradition, philosophy, and teachers. Rutter found that a school's ethos made a major difference in the achievement of the students in the school. Among the important components of the ethos that affect achievement are: (1) the expectations of teachers about the academic work and behavior of the students; (2) school-wide agreement on values and norms; and (3) attitudes of the teachers toward the students.

For Grant (1985), ethos is the configuration of attitudes, values, and beliefs that members of a school community share that make them a community rather than a group of disparate individuals. In his ethnographic study of five schools, Grant (1982) paid special attention to the way good climates are formed. Grant was particularly impressed with the climate in one of the five schools, a Catholic elementary school with a large enrollment of low-income children. He found that schools with a strong positive ethos were led by those who clearly enunciated a character ideal. Furthermore, intellectual and moral virtues were seen as inseparable; a rigorous academic education was integrated with the qualities of resilience, endurance, responsibility, resourcefulness, and social concerns. Teachers in the schools made it clear that they were responsible for shaping and maintaining the ethos of the school, which made a difference in the life of the school community. The teachers acted as role models and created expectations for their students by the way they approached their own work.

The School as Community

A recurrent theme in the research on effective schools is that good schools have a "sense of community" that has a positive effect on the quality of life for both teachers and students (Anderson, 1982; Bryk & Driscoll, 1988; Grant, 1985; Metz, 1986; Purkey & Smith, 1983, 1985). In fact, ample evidence exists to suggest that the community within a school is one of the most important aspects of the climate or ethos of the school (Grant, 1981, 1985, 1988; Hannaway & Abramowitz, 1985; Rutter et al., 1979). In addition, research plainly shows that successful schools insist on the school as community (Lightfoot, 1983; Lipsitz, 1984).

Several authors (Bryk & Driscoll, 1988; Erickson, 1982; Fech, 1985; McArdle, 1985; McDermott, 1985) adopted the theoretical framework of community developed by the German sociologist, Tonnies (Tonnies, 1965; Weber, 1947). Tonnies distinguished between two types of relationships: one he called *Gemeinschaft*, the other, *Gesellschaft*. Both types involve personal interactions, but for a different reason. *Gemeinschaft* relationships occur when people feel that they belong to a community because they share its values or traditions. *Gemeinschaft* relationships imply close and intentional interactions, which are resistant to change. On the other hand, *Gesellschaft* relationships describe associations with others that are required or advantageous to engage in to maintain an orderly society or to advance one's personal interests. *Gesellschaft* relationships are more casual, expedient, and temporary than are *Gemeinschaft* relationships.

As Bryk and Driscoll (1988) noted, both types of relationships occur within the school community. Associative relationships are necessary for the smooth functioning of the school as administrators, faculty, and students work together to meet the school's goals. The school's rules and norms permit teachers and students to relate to one another in such a way that effective teaching and learning occurs. But the school's community also promotes relationships on a more personal level. The school's traditions and rituals encourage a sense of belonging that ties students to the school community. It is these latter types of relationships, according to the literature, that characterize effective schools. So, an efficacious school community requires *Gemeinschaft* relationships; *Gesellschaft* relationships also are necessary, but they are not sufficient in themselves.

Functional Communities and Social Capital

Coleman (Coleman, 1985, 1988; Coleman & Hoffer, 1987) proposed a second theoretical framework for understanding the school community. He used the distinction between functional communities and value communities to explain the differences between Catholic schools and most other schools in *High School and Beyond*. In a value community, people share a common set of values; they have "value consistency." A functional community not only usually has value consistency, but also operates to effect a particular outcome. Two requirements for a functional community, according to Coleman, are consistency of social structure and intergenerational closure.

Coleman noted that schools can have value consistency, but not be functional communities. Parents who send their children to a school that constitutes a value community have common values; high academic ideals, preferences for a particular type of educational philosophy, and exposure to a particular type of environment are some examples of these values. However, if the parents who send their children to these schools have little or no contact with one another, or if the parents have little contact or even do not know their child's classmates, then Coleman would describe that school as a value community, rather than as a functional community.

In a school that is a functional community, most of the people whom the students know and to whom they relate in the school and outside of it, especially the adults, are closely linked. The adults in the functional community know each other and each other's children. Furthermore, the values to which the children are exposed are the values of the adults in the community. As Coleman and Hoffer (1987) noted, in a functional community, value consistency exists between children and their friends, between parents and their friends, and between parents and children.

Catholic schools, Coleman and Hoffer contended, generally not only have value consistency like

most other private schools, but they also are grounded in a functional community, while most public schools and many private schools are not. In fact, Coleman and Hoffer (1987) argued that, indeed, Catholic schools are effective because they are functional communities. Their conclusion, although not a surprise to those familiar with Catholic schools, is particularly noteworthy because of the stature of these researchers and the national importance of the data, *High School and Beyond*, on which it is based.

To further explain his concept of functional community, Coleman (1985, 1988; Coleman & Hoffer, 1987) introduced the term "social capital" to describe the empowerment that transpires in relationships between persons. Social capital is different from financial capital, physical capital, and human capital. Financial capital describes a person's wealth; physical capital, a person's tools, machines, and other productive equipment; and human capital, a person's skills, abilities, and knowledge. While financial capital and physical capital are very tangible and human capital is somewhat less tangible, social capital is even less so, for it exists in relationships between individuals.

Coleman and Hoffer (1987) used the analogy of social networks to illustrate the relationship between human capital and social capital. Each person in a social network has a certain amount of human capital represented by his or her education, abilities, personality, and other attributes. Social capital results from the relationships that occur within the network. The quality of the social capital is a function of the intensity and quality of the interactions.

The primary functional community for most children is the family. Children benefit from the social capital that results from strong relationships between them and their parents. Coleman contended that these relationships contribute more to the growth of children than do the human capital of the parents and the physical resources of the family. Although research has shown that outcomes for children are strongly affected by the human capital possessed by their parents (Coleman et al., 1966), Coleman argued that deficits in social capital are more serious than are deficits in human capital. In fact, Coleman asserted, human capital can be irrelevant to outcomes for children if parents are not an important part of their children's lives, if the human capital of parents is employed exclusively at work or elsewhere outside the home. Beneficial social capital is produced when parents take an interest in their children and their work by keeping track of school progress, knowing where their children are and what they are doing, talking to them about personal and spiritual matters, and involving them in a majority of their social activities.

The analogy of human capital and social capital also applies to the school. All teachers and students possess a certain level of human capital. The relationships among teachers (collegiality), among students (peer friendships, community of caring), and between teachers and students (school's ethos or culture) produce social capital. Coleman argued that the social capital that has value for a young person's development does not reside merely in the set of common values held by parents who choose to send their children to the same private school. Social capital resides in the functional community, the actual social relationships that exist among parents of different children, in the closure exhibited by these relationships, in the parents' relationships with the school, and in the relationships among the individuals within the school.

A Catholic school provides, as it should, the opportunity for the creation of a very efficacious functional community among the parents, staff, and students associated with the school. The foundations of this community derive from several sources (Convey, 1987). The first and primary source is the religious nature of the school, which provides the school with its unique mission and

makes it attractive as an educational alternative to some members of the larger faith community of which it is an outgrowth. As is documented later in this and subsequent chapters, Catholic schools excel in the areas of academic excellence, faith development, and the development of community. Catholic schools have climates characterized by discipline, combined with caring, good morale among teachers and students, and high levels of parent participation.

The second source of the functional community is the commitment of the teachers who choose to work in the school. Many of them do so because of the type of environment in the school and their desire to minister to the faith community there (Benson & Guerra, 1985). The research presented in Chapter 6 on why teachers choose to teach in Catholic schools shows that many teachers view their work as a ministry and their role as one of forming children, both academically and spiritually.

The shared values of the parents who send their children to the school is the third source of the functional community. Parents have specific expectations regarding the quality of the academic program offered by the school and the school's value-centered curriculum whose focal point is the formal program of religious education. For most parents who consider a Catholic school for their children, the quality of the school's academic program is a necessary condition for them to select the school. For many of these parents, however, the quality of the academic program is not a sufficient reason. These parents select a school also on the basis of the religious environment that they find there.

However, the functional community of a school, like any true community, does not come about without effort, and not every Catholic school is successful in creating it (Muccigrosso, 1986). The leadership of the principal is the key to the formation of such a community in a specific school. In some schools, the presence on the faculty of individuals from religious communities undoubtedly assists in the creation of the functional community (Greeley, 1982). But, it is the principal who has the primary responsibility for creating the positive ethos that research shows is so characteristic of effective schools. The principal provides the leadership and the mechanism for the attainment of goal consensus, mutual support and cooperation, trust and caring, and shared responsibility, which are all elements of community.

The functional community of a specific Catholic school provides an extension of the family in that it supports the religious and academic norms of the parents who select the school. Coleman and Hoffer saw the functional community of the Catholic school as supporting a strong academic curriculum, as exercising greater control within the school so as to be able to place greater demand upon students, and as providing a communal atmosphere and social resources that facilitate the enculturation of students into the school.

The Cultures of Catholic Schools and Public Schools

Catholic schools place a strong emphasis on the development of community in the school (Bryk et al., 1984; Grant, 1985; Kleinfeld, 1979; Lesko, 1988; Yeager et al., 1985). In *The Catholic High School: A National Portrait* (Yeager et al., 1985), 87 percent of the high school principals included the building of community among faculty, students, and parents as one of the top seven educational goals for their schools. In fact, more principals ranked this goal first or second than any other goal. Furthermore, most high school principals (72 percent) believed their schools were doing a quite good or outstanding job in building community among the students and staff of the school. Yeager and his associates also found that the Catholic high schools with a relatively high

sense of community tended to: (1) have smaller enrollments; (2) have higher morale; (3) emphasize the religious nature of the school; and (4) emphasize teaching about global concerns.

Other researchers made particular note of the centrality of community in Catholic schools. Kleinfeld (1979) attributed the success of certain Eskimo students in college and in their village to the climate of the Catholic boarding school that they had attended. Kleinfeld concluded that the secret of the school's success was its stress on responsibility to others, its emphasis on the development of character, and its ability to create a caring environment that was characterized by close relationships between students and teachers. Bryk and his colleagues (1984) noted a strong institutional commitment to community in the effective Catholic high schools they studied, particularly in the attempts of the teachers in these schools, both in and out of the classroom, to foster community. Grant (1985, 1988) was impressed by the sense of community and the strong positive ethos of the inner-city Catholic elementary school that he studied. Lesko (1988) provided careful documentation of the community-building activities and the ethos of caring that were evident in the Catholic high school that she extensively studied.

On the other hand, the structures of most public schools do not encourage the development of strong communities in the schools (Cusick, 1983; Grant, 1988; Powell et al., 1985). Public schools tend to be large, impersonal bureaucracies, which are characterized by rules and procedures that become ends in themselves (Abramowitz & Stackhouse, 1980; Bryk & Driscoll, 1988).

The major studies that have compared the cultures of Catholic schools with those of public schools have involved high schools. Hannaway and Abramowitz (1985) used data collected by the National Institute for Education (Abramowitz & Stackhouse, 1980) from over 1400 public high schools, 358 Catholic high schools and 96 other private high schools to examine the cultures of public and private schools. Hannaway and Abramowitz found that the public high schools were better than the private and Catholic high schools on management practices, such as classroom observations, supervision of teachers, and teacher evaluation; however, the Catholic and other private schools had the kind of school cultures that research shows is related to student achievement. In particular, the Catholic and private high schools differed from the public high schools in the: (1) goals that principals perceived that parents valued; (2) goals valued by the principals themselves; (3) commitment and interest of the parents, students, and teachers; (4) type and severity of school problems; and (5) level of conflict among parents, students, teachers, and administrators. Hannaway and Abramowitz found that parents of private and Catholic high school students valued most educational goals more highly and placed a considerably higher value on moral citizenship, individual responsibility for learning, college preparation, and aesthetic appreciation than did public school parents. Teacher commitment² and parental involvement were higher and student apathy was lower in the private and Catholic schools than in the public schools. Moreover, a stronger sense of community in the Catholic and private high schools, as evidenced by fewer and less serious school problems and much lower levels of conflict among the members of the school community, probably also contributed to the effectiveness of these schools.

Perhaps the most influential analysis of the differences in the cultures of Catholic and public schools was done by Chubb and Moe (1988, 1990) with the data from *High School and Beyond*. The basic question they addressed was: What accounted for Coleman's (Coleman et al., 1982; Coleman & Hoffer, 1987) findings regarding the differences in student achievement of public and Catholic high schools? Chubb and Moe's thesis was that the school environment exerts important and systematic influences over the development of the organizational characteristics necessary for

the school's success. They argued that public and Catholic schools exist in very different environments: politics, hierarchy, and authority characterize public schools, while markets, competition, and voluntarism characterize Catholic schools and other private schools. As a result, public schools and Catholic schools differ fundamentally in three areas: governance, administrative structures, and financing. For governance, public schools are forced to satisfy all legitimate demands from an environment over which they have no control, whereas Catholic schools are free to select a set of demands and an environment that they believe they can effectively satisfy. With respect to administrative structures, the environments of public schools are likely to be administratively more complex than the environments of Catholic schools. For financing, public schools have their resources allocated to them by authorities who do not directly consume the services of the schools, while Catholic schools receive their resources in a direct exchange for services rendered. Based on their analysis, Chubb and Moe concluded that the fundamental organizational difference between public and private systems of education is the greater freedom that private schools are provided by their environments in structuring and operating their institutions.

Chubb and Moe directly compared the environments of private schools, particularly Catholic schools, with public schools on numerous criteria. Catholic high schools were superior to public high schools on virtually every criterion. Parents of Catholic high school students, compared with parents of public high school students, reported higher expectations for their children, greater monitoring of their children, higher levels of participation in the school, and greater support of the school. Administrators of Catholic high schools had more actual teaching experience and had greater freedom to pursue the role of leader and to direct their schools according to their best professional judgment than did public school administrators. In addition, Catholic school administrators were more likely than were public school administrators to be perceived as strong leaders and as helpful to teachers. Teachers in Catholic high schools, compared with teachers in public high schools, perceived that goals of the school were clearer, had more goal consensus, had a higher level of collegiality, and felt they had more influence over matters of school policy and more control over their own instructional decisions. Finally, Catholic high schools were more demanding in their academic requirements and were not as bureaucratic as public high schools.

Bryk and Driscoll (1988) compared Catholic high schools and other private high schools with public high schools using an index of community that they developed. The index mainly involved measures of teacher collegiality. However, four student-related measures were included: academic track; similarity of courses; percentage of students in leadership roles; and percentage of students in extracurricular activities. The schools that scored high on their index had higher levels of teacher efficacy, morale, and enjoyment; lower levels of teacher and student absenteeism; higher student interest in academics; and lower rates of student misbehavior and dropout than did the other schools. On average, Catholic schools and other private schools scored higher than did public schools on the index.

Core Components of Communal Schools

An additional contribution of Bryk and Driscoll (1988) was their identification of three core components that are necessary for a communal school organization. These components are: (1) a system of values that is shared and commonly understood among the members of the school; (2) a common agenda of activities that signifies membership in the school; and (3) a distinctive pattern of social relationships that embody an "ethic of caring." According to Bryk and Driscoll, a shared system of values results in the establishment of norms for instruction and norms for behavior. In the school community, agreement exists about the purpose of the school, the nature of the

curriculum, how the adults and students of the community should behave, and the values that permeate the community. The common agenda of activities includes the academic coursework, the school's traditions and rituals, and opportunities for personal interactions among teachers and students. Common activities permit students and teachers to get to know one another, but, perhaps more importantly, these activities have symbolic value that links students to the past, while preparing them for the future. Finally, communal schools are characterized by collegial relations among the adults of the school and the personal interest of teachers in students which extends beyond the classroom.

Three important ways that Catholic schools embody these core components of communal schools are by their emphasis on academics, discipline and order, and faith communities.

ACADEMIC EMPHASIS

Research demonstrates that organizational differences among schools influence student achievement (Hannaway & Abramowitz, 1985; Lee & Bryk, 1988, 1989). The decisions a school makes about the organization of its instructional program, what courses to offer, and which to require of students, seem to have a substantial influence on academic achievement. As a result, studies have shown that, once background factors are controlled, often the number and kinds of courses that a student takes are significantly related to the student's achievement.

Most of the research on effective schools has involved secondary schools. Many of these studies, chiefly *High School and Beyond*, included Catholic schools in their samples, and these schools often proved to be among the most effective schools. What are some of the findings from the research involving Catholic schools regarding the structure of their academic programs and their academic ethos?

The vast majority of Catholic high schools emphasize an academic or college-preparatory curriculum. *The Catholic High School: A National Portrait* (Yeager et al., 1985) reported that about 30 percent of the Catholic high schools were exclusively college preparatory and just over 80 percent of the students in all the Catholic high schools were in academic programs. Data from *High School and Beyond* showed that Catholic high school students were two times more likely than public high school students to enroll in an academic program and two to three times less likely to enroll in a vocational or general program (Coleman & Hoffer, 1987). Over 72 percent of Catholic school students in *High School and Beyond* were in academic programs as seniors in 1982, compared with 36 percent of public school students. On the other hand, 18 percent of Catholic high school students were in general programs, compared with 35 percent of public school students, and 10 percent of Catholic high school students were in vocational programs, compared with 29 percent of public school students.³

Catholic high schools have a strong commitment to a core academic program for all students, regardless of the students' backgrounds and future educational aspirations (Benson et al., 1986; Bryk et al., 1984; Lee & Bryk, 1988, 1989; Rock et al., 1986; Yeager et al., 1985). For the most part, students in Catholic high schools take required courses, with only a modest number of electives. Furthermore, the limited electives available in Catholic high schools often have an academic emphasis (Bryk et al., 1984; Yeager et al., 1985). Moreover, students in Catholic high schools are more likely than students in public high schools to have been assigned to a curricular track rather than to have chosen the track (Lee & Bryk, 1988). The constrained academic organization of

Catholic high schools benefits all students, but especially disadvantaged students, since it promotes equal opportunity by minimizing the differentiation effects that can accompany a wide latitude in choice of courses (Coleman & Hoffer, 1987; Lee & Bryk, 1988, 1989). For example, a common finding from *High School and Beyond* was that a student's background had a relatively small effect on his or her choice of coursework in a Catholic school, but a relatively large effect in other schools (Coleman & Hoffer, 1987; Lee & Bryk, 1988).

Catholic high schools are more likely to deal with diversity among students by individualizing instruction within a program orientation, rather than by assigning students to different curricular tracks. Field studies of Catholic high schools (Bryk et al., 1984; Yeager et al., 1985) found that the principal differences in the instruction to students at different levels concerned pacing and intensity, rather than content. In *High School and Beyond*, Catholic high schools were distinguished from public or other private high schools in that Catholic schools made extensive use of ability groupings in schools dedicated primarily to an academic program, whereas other schools used ability groupings most extensively in comprehensive high schools (Coleman & Hoffer, 1987). For example, despite the fact that the programs of most Catholic high schools were primarily academic, 56 percent of the Catholic high schools had ability groupings in English courses in 1982 (Rock et al., 1986).

The graduation requirements for Catholic high schools, which generally are more stringent than those of public schools (Bryk et al., 1984; Chubb & Moe, 1988), are consistent with the recommendations of the school reformers of the 1980's (Goodlad, 1984; Powell et al., 1985;Sizer, 1984). Catholic high school students, regardless of their programs, usually are required to take significantly more courses in English, history, science, mathematics, and foreign language in order to graduate from high school than are public school students. In addition, Catholic high schools are more likely than public high schools to offer calculus and the third years of French and Spanish (Coleman et al., 1982). Results from *High School and Beyond* revealed that students in Catholic high schools took more academic courses (see Table 5-1) and a larger majority of them took more rigorous courses (Bryk et al., 1984; Coleman et al., 1982; Rock et al., 1986) than did students in public high schools.

Catholic high schools that serve a significant number of low-income students also place strong emphasis on academics. These Catholic high schools require about the same number of courses for graduation as do other Catholic high schools (Benson et al., 1986). While low-income-serving Catholic high schools were less likely than other Catholic high schools to offer calculus and French, over two-thirds of low-income-serving schools did offer these courses. Alternatively, low-income-serving Catholic high schools were more likely than other Catholic high schools to offer accounting and remedial English (Benson et al., 1986).

Catholic elementary schools also stress basic skills and offer a variety of courses to meet the individual needs of their students (Hafner et al., 1990; Morton, 1979). The preliminary data from NELS:88 revealed little difference in the types of courses taken by Catholic and public school 8th graders, except that Catholic school students were slightly more likely than public school students to be enrolled in a science course. In addition, Catholic school students were more likely than public school students to have received some instruction in remedial mathematics and remedial English, either in a separate course or as part of their regular courses (Hafner et al., 1990).

Student Academic Behaviors and Attitudes

The curriculum and academic climate of the Catholic school are not sufficient by themselves to

produce favorable outcomes. A great deal depends upon how students respond to the opportunity to learn and to what extent they become actively involved in the school's academic ethos. The following measures are indicators of the involvement of students in the academic aspects of the school and of a student's commitment to learning: (1) the amount of time spent on homework; (2) attendance at school; and (3) the student's reported interest in school and indication that he or she liked to work hard in school.

Homework

Studies consistently show that Catholic school students spend more time on homework than do public school students (Coleman et al., 1982; Greeley, 1982; Hafner et al., 1990; Jensen, 1986; Morton, 1979; Rock et al., 1986). Furthermore, Catholic school teachers appear to have more discretion than do public school teachers regarding how much homework to assign (Chubb & Moe, 1988).

In *High School and Beyond*, the average amount of time spent on homework differed considerably among public, Catholic, and other private schools. The average number of hours per week for the 1980 sophomores was less than four for students in public school, over five and a half for students in Catholic schools, other private schools, and high-performance public schools, and over nine for students in high-performance private schools (Coleman et al., 1982, p. 104). Black students and Hispanic students in Catholic schools were twice as likely, and white students in Catholic schools were almost twice as likely as their counterparts in public schools to spend more than five hours per week on homework (Greeley, 1982, p. 46). Seniors spent somewhat less time on homework per week than did sophomores; however, the differences were not significant for either public school students or Catholic school students (Coleman et al., 1982; Rock et al., 1986). Students in low-income-serving Catholic schools spent approximately the same time on homework as students from other Catholic high schools (Benson et al., 1986).

Data on the amount of homework per week also were gathered as part of NELS:88. As was the case for the high school students in *High School and Beyond*, students from Catholic and other private elementary schools, on average, spent more time per week on homework than did students from public schools and less time per week than did students from independent schools. Students from Catholic schools and other private schools reported spending almost six and a half hours of homework per week, while students from public schools reported spending almost five and a half hours per week and students from independent schools almost 10 and three-quarters hours per week (Hafner et al., 1990).

Attendance

Students' faithfulness in attending school daily is yet another indication of the commitment to learning promoted by the school's academic ethos. Research shows that student absenteeism is lower and is perceived as a less serious problem in Catholic schools than in public schools and other private schools. In *High School and Beyond*, fewer Catholic high school principals than public high school principals (15 percent, compared with over 50 percent) thought that student absenteeism was a problem (Coleman et al., 1982). In addition, the percentage of Catholic high schools reporting low absentee rates was well above average. Seventy-two percent of the Catholic high schools, compared with 31 percent of public schools and 43 percent of other private schools, reported an average daily attendance of at least 95 percent (Rock et al., 1986). Furthermore, almost 99 percent of Catholic high schools had an average daily attendance of at least 90 percent.

Within Catholic schools, the absentee rate for minority students was higher than that for white students. For example, in *High School and Beyond*, black and Hispanic students in Catholic high schools were more likely than were white students to be absent for more than five days a year. Eight percent of the white students in Catholic schools reported missing more than five days of schools, compared with 13 percent of the black students and 12 percent of the Hispanic students (Greeley, 1982). However, the percentages for each of the racial/ethnic groups in Catholic schools were lower than the percentages for their counterparts in public schools, with the percentage for white students in Catholic schools being less than half the percentage for white students in public schools.

The preliminary data from NELS:88 indicated that attendance rates in Catholic elementary schools also were slightly better than those in public elementary schools (Snyder, 1989). Catholic school 8th graders were more likely not to have missed any days in the previous four weeks and less likely to have missed at least five days during those same weeks than were public school 8th graders. Almost 54 percent of the Catholic school 8th graders reported perfect attendance and 5 percent of them reported missing at least five days over the previous four weeks, compared with 44 percent and 8 percent, respectively, of public school 8th graders.

Interest and Effort

Two other indicators of a student's response to a school's academic emphasis are his or her reported interest in school and whether he or she likes to work hard in school. Catholic school students, for the most part, appear to be as interested in school and like to work as hard as students from other schools. Coleman et al. (1982) found considerable agreement among students from Catholic, public, and other private schools on these two indicators. Over three-fourths of the high school students from each type of school reported being interested in school, with only high-performing private schools having a significantly higher percentage of students who were interested in school (Coleman et al., 1982). Just over half of all students in Catholic and public schools reported they liked working hard in school (Coleman et al., 1982; Rock et al., 1986). Furthermore, no differences existed between Catholic school and public school students when data from only Catholic students were analyzed (Convey, 1982). Rock et al. (1986) did find that interest in school declined from the sophomore to senior years among the students from *High School and Beyond* who were sophomores in 1980; however, no decline occurred in the students' reported desire to work hard in school. Jensen (1986) also found no difference between students in Catholic schools and public schools regarding their assessment of the importance of school; however, Catholic school students appeared to be more motivated to get good grades than were public school students.

Only the NCEA-sponsored study, *The Heart of the Matter* (Guerra et al., 1990), found any evidence of a difference in the interest in school of Catholic and public school students. Guerra's pro-school measure, which consisted of items measuring liking for school, interest in school, and the perceived relevance of school work, was lower for the Catholic high school seniors than for the public high school seniors in the study. The differences were significant only when other factors were controlled. Guerra and his colleagues speculated that the lower attitudes of the Catholic school students could be reactions to the greater academic rigor and stricter discipline found in Catholic schools. In light of findings from other studies, this unexpected conclusion remains an anomaly.

How do students in Catholic and public schools compare with regard to satisfaction with their

academic effort? Greeley (1982, p. 45) reported on the satisfaction of students in *High School and Beyond*. Overall, students in Catholic schools were more satisfied with their academic effort than students in public schools. Furthermore, the greater satisfaction extended across all racial/ethnic groups. Hispanic students in Catholic schools (36 percent) were twice as likely to be very satisfied with their academic effort than were Hispanic students in public schools (18 percent). White and black students in Catholic schools (39 percent and 29 percent, respectively) were slightly more than one and one-half times more likely to be very satisfied than were their counterparts in public schools (25 percent and 17 percent, respectively).

DISCIPLINE AND ORDER

Discipline and order in a school are natural outgrowths of the commitment of the school community (Salganik & Karweit, 1982). When the school community also is a functional community, the discipline and order that result receive better support from the members of that functional community. As Wynne (1980) argued, consensus about behavior and discipline is related to school coherence and school spirit. Moreover, orderly behavior by students apparently is a critical condition for teachers to practice their craft with confidence (Metz, 1986; Newmann, Rutter, & Smith, 1989).

Research demonstrates that discipline and orderly environments characterize Catholic schools and that the discipline in Catholic schools, on average, is better than the discipline in public schools (Chubb & Moe, 1988; Coleman et al., 1982; Erickson, 1981; Greeley, 1982; Jensen, 1986). Catholic schools generally have fewer behavioral problems and fewer instances of disruptive behavior than do public schools. In addition, students from Catholic schools perceive the discipline in their schools as fairer and more effective than do students from public schools.

Catholic schools place a strong emphasis on discipline and order. All of the Catholic high schools that participated in *The Catholic High School: A National Portrait* (Yeager et al., 1985) reported having a written statement on discipline, and 89 percent indicated they didn't tolerate deviations from the disciplinary code of the school. Virtually all of the schools had a dress code for students, and over 90 percent of them prohibited students from leaving the school grounds during the school day.

Principals and teachers in Catholic schools reported a much lower incidence of student behavioral problems and disruptive behavior than did principals and teachers from public schools. Principals of public high schools were six times more likely than principals of Catholic high schools to indicate that cutting classes was a serious or moderate problem at their schools and two times more likely to report that vandalism and verbal abuse were problems (Coleman et al., 1982; Yeager et al., 1985). In like manner, public high school teachers, compared with Catholic high school teachers, were three times more likely to indicate that student misbehavior or substance abuse interfered with their teaching, five times more likely to report that student tardiness or class cutting interfered with their teaching, and more than two times more likely to point out that student attitudes reduced the chances of their students' success (McMillen, 1988). Additionally, 8th grade teachers in public schools were more likely than were 8th grade teachers in Catholic schools to consider alcohol (9.3 percent, compared with 1.1 percent) and drugs (7.5 percent, compared with 0.9 percent) as serious problems in their schools (Ogle et al., 1991).

In general, students in Catholic schools, more than students in public schools, are comfortable

with the discipline in their school and rate it high in effectiveness and strictness (Benson et al., 1986; Coleman et al., 1982; Greeley, 1982; Hafner et al., 1990; Rock et al., 1986). Catholic high school students are most likely to rate their schools as "excellent" or "good" in effective discipline, while public high school students are the least likely to do so (see Table 5-2). About half of the Catholic high school students in *High School and Beyond* and slightly more than three-fourths of the Catholic school 8th graders gave their schools high marks for the fairness of discipline; the ratings of fairness by public high school students were slightly lower than their counterparts in Catholic schools, and those by public school 8th graders were about the same (Coleman et al., 1982; Hafner et al., 1990; Rock et al., 1986). In addition, according to student ratings, Catholic high schools had a higher percentage of teachers perceived to be very strict and a corresponding lower percentage of teachers perceived to be very permissive than did public schools.

Minority students in Catholic high schools generally perceive the discipline of their schools in a much more favorable light than do minority students in public schools. Greeley (1982) noted that family and personal background variables were less important in explaining the differences between the disciplinary environments of Catholic and public schools for minority students than were the students' evaluations of the fairness and the effectiveness of the discipline and whether the school was owned and operated by a religious community. Within Catholic high schools, Hispanic students gave the highest evaluations to their school's disciplinary environment, being slightly more likely than were white students and black students to view their school's discipline as both effective and fair (Greeley, 1982).

Studies also show that students in both Catholic elementary schools and Catholic secondary schools are more likely to report that they feel safe at their schools and less likely to indicate that disruptions by others interfere with their learning than are students in public schools (Coleman et al., 1982; Snyder, 1989). Catholic school students are much less likely than public school students to report students cutting classes, talking back to teachers, not obeying teachers, getting into fights, and threatening teachers. In addition, the data from NELS:88 revealed that 8th graders in Catholic schools were less likely than were 8th graders in public schools to consider the use of alcohol (8.5 percent, compared with 16.2 percent) and drugs (8.2 percent, compared with 15 percent) as serious problems in their schools (Ogle et al., 1991). Only *The Heart of the Matter* detailed a slightly higher use of alcohol in Catholic high schools than in public high schools; however, the comparison was only for Catholic students in each type of school (Guerra et al., 1990). As in other studies, the Catholic seniors from Catholic high schools reported a slightly lower use of illicit drugs than did the Catholic seniors from public schools (Guerra et al., 1990).

FAITH COMMUNITY

Catholic schools are more than functional communities in the secular sense. In addition, they are called to be faith communities in the religious sense, dedicated not only to promoting the four-fold purpose of Catholic education (message, community, service, and worship), but also to fostering both social reform in light of Christian values and personal sanctification of the students (National Conference of Catholic Bishops, 1972, 1979).

The concept of the Catholic school as a faith community is clearly enunciated in official documents from the bishops of the United States and the Sacred Congregation for Catholic Education. In *To Teach As Jesus Did* (National Conference of Catholic Bishops, 1972), the American bishops affirm the need for and the effectiveness of the Catholic school. The Catholic

school, the bishops write, must respond to the challenges of the modern world by developing in its students a commitment to community and to the social skills and virtues needed to achieve it (#109). The building of and the living of community must be explicit goals of the contemporary Catholic school (#108). Community, they emphasize, is not just a concept to be taught, but a reality to be lived (#106). For the bishops, community becomes the necessary condition for, as well as the goal of, total Christian education.

The Sacred Congregation for Catholic Education in Rome issued three documents between 1977 and 1988 concerning Catholic schools. *The Catholic School* (1977), which addressed the basic mission and identity of the Catholic school, directs that the Catholic school must be a community whose aim is the transmission of values for living. *Lay Catholics in Schools: Witnesses to the Faith* (1982) specifies that the educational community of a Catholic school must be in the process of becoming a Christian community, a genuine community of faith (#41). Finally, *The Religious Dimension of Education in a Catholic School* (1988) prescribes that the Catholic school must foster an integration of faith and secular subjects.

The challenge to create the community of faith is for all involved in the school: parents, pastors, teachers, administrators and students (National Conference of Catholic Bishops, 1972). In *Sharing the Light of Faith: National Catechetical Directory for Catholics of the United States* (National Conference of Catholic Bishops, 1979), the bishops single out the principal of the Catholic school as having particular responsibility for facilitating the development of the faith community in the school. Principals are to foster community among the faculty and students by communicating an understanding of the school as part of larger communities, both secular and religious, and by establishing structures for accountability and evaluation of programs (National Conference of Catholic Bishops, 1979).

Contemporary researchers and observers of Catholic schools have recognized the faith community of the schools as one of their essential characteristics. McDermott (1985), for example, emphasized that the Catholic school is a religious community within an academic community. Ferraro (1989) acknowledged the reality of the faith community and included the spiritual dimension, along with the academic and social dimensions, in her study of community in Catholic high schools. Wojcicki and Convey (1982) offered guidance as to how to promote the development of the faith community in Catholic schools.

However, not all observers of Catholic schools agree that the emphasis of Catholic schools is on the development of the faith community. Morrison and Hodgkins (1978) maintained that religious training had become secondary in Catholic schools. They argued that contemporary Catholic schools place more emphasis on the academic side of education and on the goal of preparing Catholic youth for contemporary life. A primary motivation for this change in orientation, they claimed, was to ensure the economic success, indeed, in some cases, the solvency, of the schools. Further, they identified three factors associated with this shift in emphasis from the religious to the academic. First, the assimilation of Catholic ethnic minorities into the sociocultural mainstream of American life resulted in a reduced importance of the identification of specific ethnic groups with Catholicism. Second, the incorporation of large numbers of Catholics into the middle class meant, among other things, a change in attitudes and values regarding education, consistent with those held by the non-Catholic middle class. Third, the de-emphasis of the importance of religion in modern American society resulted in the increased secularization of the goals of Catholic schools.

If, indeed, the purpose of the contemporary Catholic school is merely to be an outstanding academic institution, if the development of the faith community is not as important as the academic mission of the school, no particular need for the Catholic school would exist. As Benson and Guerra (1985) argued, the Catholic community certainly would be well-advised to place its economic resources into other ministries. The contemporary Catholic school often does face competing interests in terms of its primary orientation, so much so that there is concern about the Catholic identity of Catholic schools in some cases. Lesko (1988), for example, recognized the tension exhibited in contemporary Catholic schools between an emphasis on "education as skill and self-interested achievement and a religious-based education emphasizing character and morals" (p. 19). She further observed that the relative strength of the two emphases varies with a school's student composition, tradition, and location.

What, then, does the research show about the effectiveness of the Catholic school in developing a faith community? The primary data concerning the faith community of Catholic schools come from the trilogy of studies produced jointly by NCEA and the Search Institute, *The Catholic High School: A National Portrait* (Yeager et al., 1985), *Sharing the Faith: The Beliefs and Values of Catholic High School Teachers* (Benson & Guerra, 1985), and *Catholic High Schools: Their Impact on Low-Income Students* (Benson et al., 1986). In addition, ethnographies by Helm (1990), Lesko (1988), and Pejza (1988), and studies by Ciriello (1988), Colaco (1982), Davis (1990), Fech (1985), Ferraro (1989), and McCormick (1987) contributed additional data.

Faith Development

An essential characteristic of a faith community in a school is the concern on the part of the entire school community for the faith development of the students in the school. Strong evidence exists that Catholic high schools give priority to faith development and emphasize it as much as the academic and social development of the students. This priority is attested to by the schools' principals and teachers, and supported by data obtained from students.

The data from *The Catholic High School: A National Portrait* (Yeager et al., 1985) and *Catholic High Schools: Their Impact on Low-Income Students* (Benson et al., 1986) concerning the priority accorded to the faith development of students by Catholic high schools are compelling:

99 percent of the principals indicated that their schools demonstrated as much concern for faith development as for academic and social development;

83 percent of the principals indicated that faith development was a priority in their schools;

77 percent of the principals ranked fostering spiritual development among the highest seven goals out of a list of 14 educational goals for their schools;

68 percent of the principals of low-income-serving Catholic high schools ranked their schools high in providing a strong emphasis on faith development.

Moreover, the teachers in Catholic high schools generally agreed with the assessments of their principals concerning the schools' emphasis on faith development. Most (72 percent) Catholic high school teachers surveyed not only strongly supported the faith development of the students as a major goal for every Catholic high school, but also the vast majority of them (94 percent) agreed

that their schools demonstrated as much concern for faith development as for academic and social development (Benson & Guerra, 1985). In addition, most teachers in the low-income-serving Catholic high schools⁴ gave their schools "quite good" or "outstanding" ratings for promoting faith development among students (60 percent), building community among students and staff (57 percent), and emphasizing values and moral development (72 percent) (Benson et al., 1986, p. 147).

Even the Catholic high school students who were studied, despite their common tendency to view religious aspects of the school with more skepticism than principals or teachers, reported that the schools placed strong emphasis on faith development. For example, 73 percent of the students in low-income-serving Catholic high schools (Benson et al., 1986) rated their schools high in their emphasis on faith development. And, in Ferraro's (1989) study of the dimensions of community in Catholic high schools, the students, on average, perceived that their schools placed about the same emphasis on the spiritual aspect of community as on the academic and social aspects of community.

Studies also indicate that Catholic elementary schools place a high priority on faith development. Helm (1990) noted the emphasis that the four elementary schools in her ethnographic study placed on the development of the faith community of the school. The teachers in each school recognized the efforts of their principal to create the faith community. Over half the teachers in three of the schools and more than a third of the teachers in the fourth school indicated that they liked best their school's atmosphere, which Helm described as "a faith community," "a caring community," and "like a family." In his dissertation on standards of accreditation for Catholic elementary schools, Davis (1990) found that the pastors, principals, teachers, and parents from 36 elementary schools in various parts of the country gave high ratings to the efforts of the elementary school with which each was associated to nurture the faith of students and assist them to mature in their faith. Other evidence for the presence of the faith community in Catholic elementary schools comes from unpublished results of surveys of teachers in Boston, Corpus Christi, and Washington. The vast majority of the teachers surveyed (1) agreed that a strong Christian community existed in the school, (2) were satisfied with the community that existed among faculty and students, and (3) viewed the faith community of the school and their desire to help create a Christian community as important reasons why they remained teaching in the school (see Table 5-3).

Colaco (1982) and McCormick (1987) included the examination of the Catholic identity of elementary schools, as opposed to specifically the school's emphasis on faith development, in their studies. Both researchers operationally defined Catholic identity in terms of the three-fold purposes of message, community, and service, that were identified in *To Teach as Jesus Did*. Colaco found a uniform emphasis on Catholic identity in the schools she studied. Furthermore, parents and teachers recognized the schools' efforts to promote message and community aspects of Catholic identity to a greater extent than did the students in these schools. In addition, the over 300 Catholic schools that McCormick sampled from Philadelphia, Los Angeles, Milwaukee, and Louisville also placed a strong emphasis on Catholic identity.

The Development of the Faith Community

The faith community of the Catholic school doesn't simply materialize because the school is Catholic. The entire functional community that comprises the school must actively create and nurture the faith community. The research indicates that Catholic schools attempt to build and sustain a successful faith community through: (1) the presence of specific community-building

structures; (2) a teaching staff whose members have a commitment to develop the faith community; and (3) the leadership of the principal in fostering the faith community.

Community-Building Structures

Schools with effective faith communities have in place specific structures, for both students and faculty, that assist in the formation and maintenance of the faith community. Lesko (1988) referred to these structures as school rituals, symbols which convey the general notion that "there is something higher" than individual need or desire. The "something higher" exists at a level beyond immediate appearances; it transcends the direct experiences of the students. The common structures that assist in the development of the faith community of the Catholic school are liturgical celebrations, other religious celebrations, retreats, collective prayer, and opportunities for apostolic service. These structures commonly are found in most Catholic schools. For example, Yeager (Yeager et al., 1985) found that:

89 percent of Catholic high schools reported giving priority in their budgets for religious celebrations and retreats;

82 percent of Catholic high schools reported having an all-school Mass at least once a month;

94 percent of Catholic high schools reported having retreats for seniors and 78 percent had them for freshmen.

In addition, both Yeager (Yeager et al., 1985) and Bryk (Bryk et al., 1984) reported an increase in the number of Catholic high schools offering or requiring apostolic service projects in the five years prior to the time that each collected his data.

The Teachers

Since teachers have the most contact with students, their efforts are indispensable to the school's ability to develop effectively a vital faith community. The research indicates that: (1) Catholic schools attempt to hire teachers who are capable of assisting in the faith development of students; (2) the schools provide structures for teachers to help them to contribute to the community of the school; (3) the goals of many teachers include contributing to the formation of the faith community of the school; and (4) many teachers play an active role in promoting the faith development of their students.

First, the successful establishment of the faith community in a Catholic school depends, in part, on the disposition of the teachers to participate in its formation. Salganik and Karweit (1982) pointed out the necessity for private schools to match teachers with the philosophy of the school, since part of a teacher's job is to socialize students to behave in accord with the school's values. The evidence is clear that, in hiring teachers, Catholic schools attempt to identify prospective candidates who will be able to assist in the development of the faith community of the school. For example, 94 percent of the Catholic high school principals responding in *The Catholic High School: A National Portrait* indicated that, in hiring teachers, they considered the candidate's commitment to his or her faith and to the value system of the church (Yeager et al., 1985). Most (59 percent) of the high school teachers surveyed agreed that their schools placed a major emphasis on evidence of the candidate's commitment to the faith or the value system of the church (Benson

& Guerra, 1985). In low-income-serving Catholic high schools, 71 percent of the teachers reported that their schools expressed clear expectations for the teacher's role in religious formation (Benson et al., 1986). Also, all four principals in the Catholic elementary schools studied by Helm (1990) indicated they sought, as prospective teachers, persons of deep faith, who were active in the church, who would be good Christian role models, and who saw teaching as a vocation or as a ministry.

How successful have Catholic schools been in attracting teachers who are able to assist in the faith development of students? For the most part, it seems that the schools have been quite successful. Benson and Guerra (1985) found that the vast majority of high school teachers placed a high value on religion, with 75 percent of them claiming that religion is "the most important" or "one of the most important influences" in their lives. Only 5 percent of all teachers (3 percent of Catholic lay teachers) claimed religion was personally unimportant to them. In addition, over 70 percent of the high school teachers reported they attended church at least once a week, and they placed strong emphasis on prayer, worship, and listening to God (Benson & Guerra, 1985). Similar levels of commitment were found for teachers in Catholic elementary schools in the Archdiocese of Washington (Ciriello, 1988), the Diocese of Corpus Christi (Convey, 1989b), and the Archdiocese of Boston (Tarr, 1990b). Some Catholic schools, however, are not as successful as others in attracting teachers with the desired values and levels of commitment. As Fech (1985) found, some of the lay persons who taught at the elementary schools in his study held secular values that were inconsistent with the stated goals of these schools of building the school into a faith community.

Second, Catholic schools ordinarily provide some mechanism to enculturate teachers into the faith community of the school. In *The Catholic High School: A National Portrait*, 78 percent of Catholic high schools reported having retreats for teachers or providing other opportunities for teachers to worship and pray together (Yeager et al., 1985). Most (77 percent) Catholic high school teachers surveyed as part of *Sharing the Light of Faith* agreed that the staff and students in their schools experienced a deep sense of community, and about half (46 percent) said that the staff at their school prayed together as a group and discussed spiritual concerns (Benson & Guerra, 1985, p. 49).

Third, the teachers, or at least a substantial number of them, must intentionally work to help students become cognizant of and fully involved in the faith community of the school. Over two-thirds of the teachers in Catholic high schools rated the promotion of the sense of community in the school and helping students see the relevance of Christian values in their daily lives as "extremely important" or "very important" goals in their teaching (Benson & Guerra, 1985, p. 52). Also, in the field sample of Catholic high schools studied by Bryk and his associates (Bryk et al., 1984), both lay and religious faculty overwhelmingly believed that the schools should promote the building of Christian community. However, evidence presented by Benson and Guerra (1985) suggests that, in the average Catholic high school, teachers from religious communities are more likely than Catholic lay teachers and non-Catholic teachers to place a high priority on goals relating to the religious formation of the students. For example, 79 percent of religious teachers, compared with 46 percent of Catholic lay teachers and 33 percent of non-Catholic teachers, indicated that promoting the development of faith in their students was very important or extremely important (Benson & Guerra, 1985, p. 52). Ciriello (1988) reported a similar finding: 73 percent of the religious teachers in the elementary schools of the Archdiocese of Washington ranked spiritual development among their top three instructional goals, compared with 38 percent of Catholic lay teachers.

Fourth, teachers, by their words and actions, must challenge and assist students to become active participants in the faith community of the school. Despite wide recognition (by 82 percent of the teachers) that many teachers left the task of faith development to members of the religion department, and skepticism on the part of some teachers (41 percent) who viewed their colleagues as apathetic about promoting faith development, most (77 percent) of the Catholic high school teachers surveyed believed that the teachers in their school sought opportunities to witness their faith (Benson & Guerra, 1985). Regarding their own efforts to promote the religious formation of their students, 76 percent agreed they felt an obligation to promote the faith of their students and 71 percent indicated they understood their role in the religious development of the students. Although the high school teachers reported they "frequently" or "very frequently" integrated religious concepts into their subject matter (60 percent), prayed with students at the start of each class (58 percent), talked with individual students about matters of faith or values (46 percent), and talked in the classroom about their own faith (41 percent) (Benson et al., 1986, p. 134), the data clearly showed that religious teachers, compared with lay teachers, were (1) more committed to communicating Catholic doctrine and Catholic social teaching, and (2) more willing to share explicitly their religious values (Benson & Guerra, 1985).

The Leadership of the Principal

The research consistently has identified the leadership of the principal as one of the primary contributors to a school's effectiveness (Purkey & Smith, 1983, 1985). Effective principals exercise their leadership in the setting of school goals and by their ability to implement the vision of the school. Effective principals are able to define priorities that focus on the central mission of the school and to garner support for these priorities from all the stakeholders in the school (Leithwood & Montgomery, 1982).

What qualities must an individual possess to be an effective principal in a Catholic school? McDermott (1985) identified four roles for a Catholic school principal: manager, academic leader, creator of the school's environment, and religious leader. The first three roles are common to principals of all types of schools, regardless of their sponsorship. Like principals of other schools, the Catholic school principal must be an effective manager of the school's affairs, an instructional leader who charts the academic destiny of the school, and a builder and maintainer of the school community. As Bryk and Driscoll (1988) noted, the principal, more than any other individual, shapes the academic and social environment of a school and thus plays a major role in the development and maintenance of the school community. It is the fourth role, religious leader, that gives the Catholic school principalship its uniqueness and its challenge.

The leadership of the principal is essential to the development of the faith community in a Catholic school. Superintendents of Catholic schools recognize the importance of the principal's leadership ability. When asked to choose among various aspects of leadership, 22 diocesan superintendents who responded to a survey selected faith leadership as being the most important leadership quality of the principal, more important than symbolic, educational, and administrative leadership (Ciriello, 1989). What do principals who are recognized as effective leaders do to create the faith community of the school? Helm's (1990) ethnography of four Catholic elementary school principals who had been identified as transformational leaders provided many examples of how effective principals create and sustain the faith community of the school. The principals in her study exercised their moral leadership by their integration of Christian values into everyday activities, their emphasis on promoting their school's values in their speeches and conversations, their emphasis on liturgical services, and by leading the school in daily prayer and the faculty in prayer at meetings.

One essential prerequisite for a Catholic school principal would seem to be an understanding of the role of the Catholic educator as minister. Yeager et al. (1985) found that virtually all (97 percent) of the high school principals in *The Catholic High School: A National Portrait* treated education as ministry, and Sheehy (1987) found that lay principals were more accepting of the concept of ministry than lay teachers. Furthermore, the vast majority of principals conveyed to their staffs the concept that education is ministry (Benson & Guerra, 1985, p. 48).

Are principals from religious communities more successful or more disposed than lay principals to creating the conditions for a vital faith community in the school? One study (Pejza, 1988) found that the ability and charisma of the principal influenced the strength of the culture of the Catholic high school more than the clerical, religious, or lay status of the principal. However, other studies (Bryk et al., 1984; Greeley, 1982) made particular note of the success of high schools operated by religious communities, both in terms of their ability to create community and their academic success. Also, McCormick (1987) concluded that the Catholic elementary schools in her study that were administered by principals from religious communities had higher levels of Catholic identity than did the elementary schools that had lay principals.

SUMMARY

1. The research on school climate suggests that the dominant culture characteristic of Catholic schools is an important contributor to their effectiveness. Coleman hypothesized that part of the effectiveness of Catholic schools is explained by the functional community that resides in and surrounds the schools, and by the efficacious social capital produced within that community. The functional communities associated with Catholic schools strongly influence the common norms, beliefs, values, and practices that constitute the culture of the schools. The culture of Catholic schools, which is very different from that of public schools, is more likely to foster an environment that supports the religious and academic norms of parents by establishing a strong academic curriculum, by exercising greater control within the school in order to place greater demands upon students, and by creating a communal atmosphere among faculty and students that is conducive to the social and spiritual development of students.

2. The organizational environment and general climate of Catholic schools promote student learning more than the environment and climate of public schools. Catholic schools function more as communities, have fewer disciplinary problems, place a stronger emphasis on academics, and have more demanding academic requirements than public schools. Students in Catholic schools complete more academic courses and enroll in more rigorous courses than students from public schools. Compared with the typical public school student, the typical Catholic school student spends more time on homework, misses fewer days of school, rates the school's discipline as fairer and more effective, and indicates much less frequently that disruptions by others interfere with his or her learning.

3. The functional community of a Catholic school also is a faith community. Catholic schools make special efforts to create and nurture the faith community within the school. The presence of strong administrators, committed teachers, and specific community-building structures, rituals, and traditions assist in the development of this faith community. Although the research concerning aspects of the faith community is limited, and the most comprehensive studies involved Catholic high schools, the evidence from these studies suggests the following generalizations:

Virtually all Catholic schools place a priority on developing the faith of their students and most schools apparently are effective in accomplishing this.

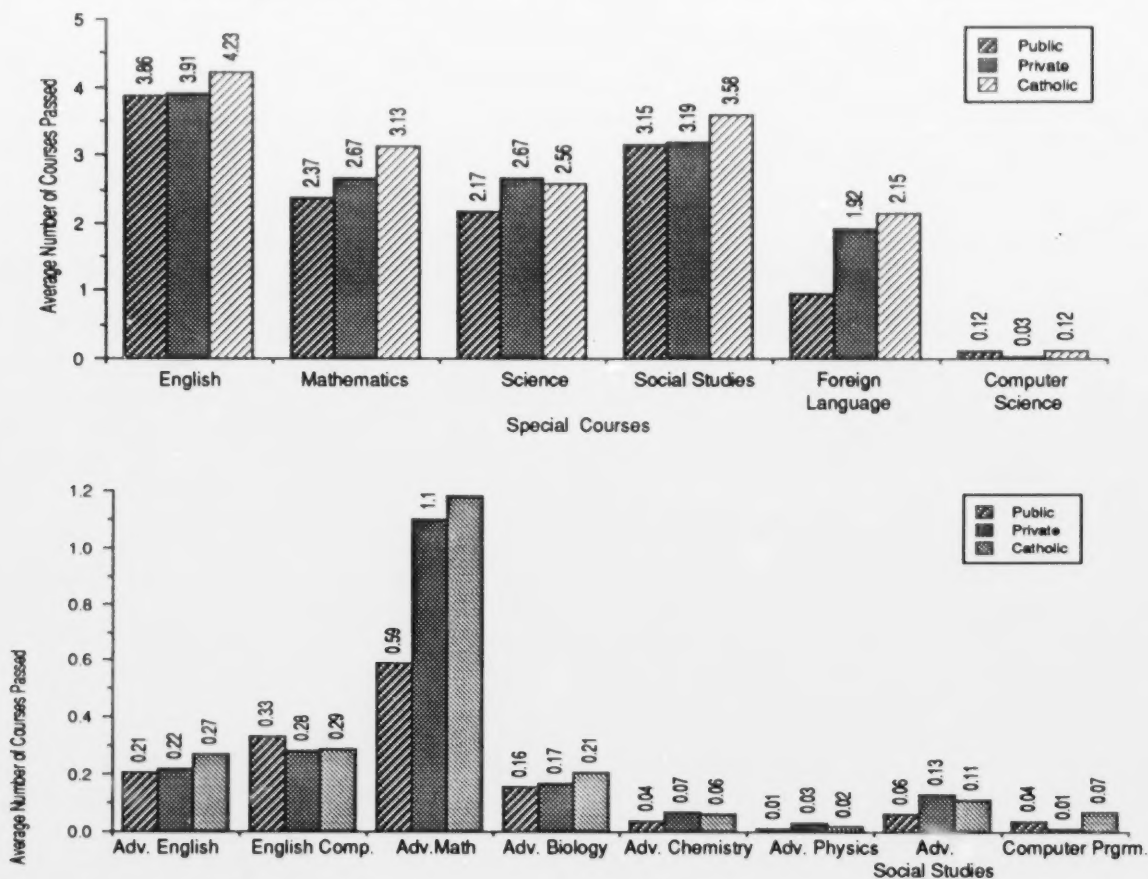
Catholic schools generally have specific community-building structures to help create and nurture the faith community of the school.

Catholic schools ordinarily seek prospective teachers with specific qualities in an effort to form a strong functional community among the faculty which will be better able to assist in the development of the faith community of the school.

Most teachers in Catholic schools make a special effort to integrate religious and moral values into their courses.

A substantial number of teachers aggressively attempt to further the faith community of the schools by their specific actions and by their interactions with the students.

Table 5-1: Average Number of Courses Passed by Students in *High School and Beyond* who Graduated in 1982



Source: Rock et al. (1986, pp. 547-594).

Table 5-2: Student Ratings of Strictness and Fairness of Discipline: Mean Scores and Percent "Excellent" or "Good"

	Mean Scores		Percent
	Sophomores	Seniors	Sophomores
Strictness of Discipline			
Public	2.42	2.46	41%
Private	2.81	2.74	65%
Catholic	3.07	2.95	76%
Fairness of Discipline			
Public	2.31	2.32	36%
Private	2.44	2.51	46%
Catholic	2.53	2.44	47%

Sources: Coleman et al. (1982); Rock et al. (1986).

Table 5-3: Responses of Elementary School Teachers to Items Regarding the Faith Community of their Schools

	Boston (n=658)	Corpus Christi (n=152)	Washington (n=806)
Percent Important (Very Important)			
Reason for Remaining			
Help Create a Christian Community	91(50)	97(41)	98(46)
The Faith Community of the School	86(43)	93(35)	97(42)
Percent Satisfied (Very Satisfied)			
Community Among Faculty and Students	93(41)	95(45)	96(34)
Percent Agree (Strongly Agree)			
Strong Christian Community Exists	90(34)	90(39)	Not Asked

Sources: Unpublished data from surveys of teachers in planning studies for the Archdiocese of Boston (1990), the Diocese of Corpus Christi (1988), and the Archdiocese of Washington (1986).

TEACHERS

The Catholic school's religious nature and its mission require Catholic school teachers to fulfill a special role, which the church in its official documents has consistently acknowledged. In the *Declaration on Christian Education*, the Second Vatican Council identifies teachers as the most important factor that determines whether the Catholic school achieves its purpose. The document describes that purpose in this way:

"The Catholic school pursues cultural goals and the natural development of youth to the same degree as any other school. What makes the Catholic school distinctive is its attempt to generate a community climate in the school that is permeated by the Gospel spirit of freedom and love. It tries to guide the adolescent in such a way that personality development goes hand in hand with the development of the 'new creature' that each one has become through baptism. It tries to relate all of human culture to the good news of salvation so that the light of faith will illumine everything that the students will gradually come to learn about the world, about life and about the human person."¹

In addition to the academic, social, physical, and personal goals that are common to all schools, the Catholic school promotes spiritual development and value formation. To assist students to attain the goals and objectives of Catholic schools, effective teachers must possess special qualifications. The church document on lay teachers, *Lay Catholics in Schools: Witnesses to Faith* (Sacred Congregation for Catholic Education, 1982), which was promulgated on October 15, 1982, clearly spells out the requirements for Catholic school teachers.

First and foremost, like teachers everywhere, Catholic school teachers must be capable educators who have acquired a solid academic formation and who keep abreast of developments in their disciplines (#27). The classroom teacher is the key to a quality education. To a great extent, successful learning depends on good teaching.

There are, however, three special qualifications for teachers in Catholic schools. First, the teachers must be witnesses to the faith, by being committed to helping their students develop Christian beliefs and values (#29) and by being willing to model for their students "how these beliefs and values shape and inform spiritual, moral, and lifestyle choices" (Benson & Guerra, 1985, p. 2). Catholic school teachers must constantly be alert for opportunities to initiate the appropriate dialogue between culture and faith (#29).

"The Catholic teacher, therefore, cannot be content simply to present Christian values as a set of abstract objectives to be admired, even if this is done positively and with imagination. They must be presented as values which generate human attitudes and these attitudes must be encouraged in the students" (Sacred Congregation for Catholic Education, 1982, #30).

Second, in addition to being witnesses by the way they teach, teachers in Catholic schools must provide in the conduct of their daily lives a witness to the beliefs and values that they teach (#32). Students should see in their teachers Christian attitudes and behaviors. Catholic school teachers are called to be more than just school professionals. Teaching in a Catholic school is a vocation, a state in life, wherein teachers, by living the gospel message, proclaim that message to their students.

Third, teachers are called to love their students and to show this love in the way that they interact with their students. Teachers and students enter a personal relationship, which is characterized by a prudent combination of familiarity and distance and which is adapted to the need of each individual student (#33). These relationships allow the Catholic school teacher to form with his or her students close bonds that assist in the development of the faith community of the school.

The teacher has been the subject of a considerable amount of research. Educational psychologists, such as Gagne and Bruner, have helped through their research to illuminate the teacher's role in the teaching-learning process. Gagne (1977) saw the primary role of the teacher as the arranger of the events and activities, external to the learner, that facilitate the learner's activation of the internal intellectual processes necessary for learning to occur. The teacher engages, motivates, encourages, guides, evaluates, and provides feedback in order to enhance the student's comprehension and retention of the object of the instruction.

For Bruner (1960), the teacher fulfills three important roles: communicator, model, and identification figure. As a communicator of knowledge, the teacher must be a competent professional, who has mastered the subject matter to be learned. As a model of academic values, the teacher promotes his or her subject and enhances the development of the students' appreciation of and enthusiasm for the subject. Finally, as a person with whom the students relate on a daily basis, the teacher has an impact on students, for better or worse, far beyond simply the communication of facts, skills, and sentiments concerning the subject taught.

The research on effective schools added an organizational dimension to the understanding of the qualities of effective teachers. What has emerged from this research is the importance for schools of committed and satisfied teachers, who constitute a community of professionals united for a common purpose (Chubb & Moe, 1990; Goodlad, 1984; Lee, Dedrick, & Smith, 1991; Purkey & Smith, 1983; Rutter et al., 1979; Sizer, 1984). Good schools, Goodlad (1984) noted, depend to a great extent on a reasonably stable, committed, competent, and satisfied teaching staff.

This chapter contains a summary of the research concerning teachers in Catholic schools. After a description of some of the demographic characteristics of Catholic school teachers and their professional preparation, research in the following areas is reviewed: teachers' personal instructional goals; their work conditions; the relationships between their levels of commitment, satisfaction, and efficacy; and the perceptions of their effectiveness.

DEMOGRAPHIC CHARACTERISTICS OF CATHOLIC SCHOOL TEACHERS

The number of full-time teachers in Catholic schools increased dramatically between 1920 and 1965 and slowly declined between 1965 and 1990 (see Table 6-1). The increase in the number of teachers between 1920 and 1965 was commensurate with the rapid growth of Catholic schools during that same period. By 1965, Catholic schools employed over 177,000 full-time teachers,

more than three and a half times the number of full-time teachers in 1920. Over 80,000 teachers also were added during the 15 years from 1950 to 1965.

As expected, the decline in the number of schools and their enrollments between 1965 and 1990 (see Tables 3-1 and 3-3) resulted in the need for fewer full-time teachers. By 1990, Catholic schools employed 136,900 full-time teachers, just over 40,000 fewer than in 1965.

Relatively speaking, the reduction in the number of full-time teachers from 1965 to 1990 (22.7 percent) was considerably less than the decline in the enrollment of the schools during the same years (55.4 percent). This proportionately-lower decline in the number of teachers, compared with the decline in enrollment, resulted in an overall lowering of the student-teacher ratio. As Table 6-2 shows, the ratio of students to teachers steadily declined between 1965 and 1990 for elementary schools, from 37 students to 20 students per teacher, and for secondary schools, from 19 students to 14 students per teacher. Prior to 1965, the student-teacher ratios for elementary schools ranged between 34 to 40 students per teacher and for secondary schools, between 16 to 20 students per teacher.

Religious and Lay Teachers

From the 1920's through the 1950's, about one in 10 Catholic school teachers were from the laity. The relative frequency of lay teachers was higher in secondary schools than in elementary schools, with the average secondary school teacher being about two times more likely to be from the laity than the average elementary school teacher (see Table 6-1).

As the post-World War II baby boom swelled the enrollments of Catholic schools in the 1950's, the number of religious available to teach in the schools was not sufficient to satisfy the increasing demand for additional teachers. As a result, Catholic schools hired a large number of lay teachers during the 1950's; more than 30,000 of the 57,000 teachers hired during these years were from the laity. Between 1950 and 1960, the number of lay teachers grew from about 4700 to over 29,000 in Catholic elementary schools and from about 4600 to almost 11,000 in Catholic secondary schools. The percentage of lay teachers, which for 30 years was consistently between 6 percent and 8 percent for elementary schools and between 12 percent and 17 percent for secondary schools, rose considerably. In 1960, almost 27 percent of elementary school teachers and nearly 25 percent of secondary school teachers were from the laity.

The increase in the number of lay teachers in Catholic schools was even more dramatic between 1960 and 1965 than it had been between 1950 and 1960. Despite an increase in the number of full-time teachers between 1960 and 1965, the number of religious teaching in Catholic elementary schools had already started to decline. By 1965, almost 3000 fewer religious taught in Catholic elementary schools around the country. The demand for additional teachers during these five years was met by hiring almost 15,000 additional lay teachers for the elementary schools and almost 9000 additional lay teachers for the secondary schools. By 1965, over one-third of the teachers in Catholic schools were from the laity.

Virtually all of the decline in the number of teachers after 1965 involved teachers from religious communities. Between 1965 and 1980, the number of religious teachers declined by almost 40,000 for Catholic elementary schools and by over 33,000 for Catholic secondary schools. On the other hand, more than 42,000 lay teachers were added during this 15-year period, with the result that the percentage of lay teachers more than doubled between 1965 and 1980 for both Catholic elementary schools and Catholic secondary schools. In 1980, lay teachers comprised almost three-

fourths of the full-time teachers in both elementary schools (74.3 percent) and high schools (70.5 percent).

Even with a slight increase between 1980 and 1985, the number of full-time teachers in Catholic schools declined by almost 9000 during the 1980's. Religious teachers accounted for the majority of the decrease: 12,000 fewer in elementary schools and 7000 fewer in secondary schools or about one-half of the number of religious who were teaching in 1980. By 1990, almost five of six teachers in Catholic schools (85.3 percent) were from the laity.

Despite the dramatic decrease in their representation among the number of full-time teachers, religious continued to hold most of the top administrative positions and continued to be well represented among the full-time high school religion teachers. Data from *The Catholic High School: A National Portrait* indicated that, in 1984, about 73 percent of the principals of Catholic high schools were priests or members of a religious community, a percentage that declined only slightly in 1986 (69 percent), 1988 (63 percent), and 1990 (66 percent) (Guerra & Donahue, 1990). Among the full-time high school religion teachers, about 42 percent were priests, religious sisters, or religious brothers (Yeager et al., 1985).

The relative percentages of lay teachers and religious teachers in Catholic high schools varied somewhat by the region of the country, and the size and the ownership of the school. In 1984, Catholic high schools in the Southeast (17 percent), Plains (20 percent), Great Lakes (21 percent), and West/Far West (21 percent) regions had lower percentages of religious teachers than did Catholic high schools nationally (about 24 percent), while the schools of the New England (25 percent) and Mideast (31 percent) regions had higher percentages (Yeager et al., 1985). Smaller schools, compared with larger schools, and private schools, compared with diocesan, parish, and interparochial schools, had somewhat higher percentages of religious teachers (Yeager et al., 1985).

The most important variable affecting the number of teachers in a school from a religious community appeared to be ownership of the school. Religious communities, which owned or operated just under half of the Catholic high schools in the country in 1990 (Guerra & Donahue, 1990), were likely to staff these schools with community members in order to maintain the charisma and influence of the community in the school and to control costs. Not unexpectedly, these community-owned or community-operated high schools also were more likely to have a religious principal (80 percent) in 1990 than were diocesan (56 percent) or parish/interparochial (61 percent) high schools (Guerra & Donahue, 1990).

Gender

Pre-college teaching, especially at the elementary level, historically has been a female-dominated profession. While women traditionally hold two of every three teaching positions in public schools, the ratio of female teachers to male teachers in Catholic schools typically ranges between three and four women to every one man.

During a typical year, the vast majority of teachers in Catholic elementary schools are women. On average between 1960 and 1989, female teachers in Catholic elementary schools outnumbered male teachers about nine to one, which was about the same or slightly higher than the ratio of female to male teachers in public elementary schools (Neuwien, 1966; Snyder, 1989). The ratio of female to male teachers at the secondary level, however, was considerably less than the ratio

at the elementary level for both Catholic and public schools, with just slightly more females than males teaching in high schools.

While more women than men taught in Catholic high schools, male teachers constituted a higher percentage of the faculty in the mid-1980's than in the early 1960's. In 1962, just over one of every three high school teachers (36 percent) were men (Neuwien, 1966). By 1984, men comprised just under half of the teachers in Catholic high schools, 44 percent according to Carroll's (1985) estimate from *High School and Beyond* and 47 percent, according to Yeager et al.'s data from *The Catholic High School: A National Portrait*. These estimates of the percentage of male teachers in Catholic high schools are similar to the percentage of male teachers in public secondary schools (47 percent) and all private schools (48 percent) (Snyder, 1989). The gradual shift to a more equal number of men and women in Catholic high schools was due partly to the hiring of male lay teachers to replace the diminishing number of female religious, who constituted 49 percent of high school teachers in 1962 (Neuwien, 1966), but only 14 percent in 1984 (Yeager et al., 1985).

Race/Ethnicity

The vast majority of Catholic school teachers, as well as public school teachers, in a typical year are white. However, a higher percentage of public school teachers than Catholic school teachers are likely to be members of a racial or ethnic minority. In 1986, for example, 93.5 percent of all Catholic school teachers and 89.6 percent of public school teachers were white (Snyder, 1989).

Most Catholic school teachers who belong to a racial or ethnic minority population are Hispanic, while most of the remaining minority teachers are black. In 1986, for example, Hispanics comprised approximately 3.4 percent of all teachers and 52 percent of all minority teachers in Catholic schools, while blacks comprised approximately 2.5 percent of all teachers and 38 percent of all minority teachers (Snyder, 1989). While the probability of a typical teacher being Hispanic is about the same in Catholic schools as in public schools, the probability of a typical teacher being black is almost three times greater in public schools (6.9 percent in 1986) than in Catholic schools (2.5 percent) (Snyder, 1989).

Typically, black and Hispanic teachers are slightly more likely to teach in Catholic elementary schools than in Catholic secondary schools (Snyder, 1989; Yeager et al., 1985) and in schools with higher rather than lower concentrations of minority students (Benson et al., 1986; Cibulka et al., 1982). Yeager et al. (1985) reported that 1.6 percent of Catholic high school teachers were black and 3 percent were Hispanic, each figure less than the corresponding percentages reported above for all Catholic school teachers. In low-income-serving Catholic high schools, which enrolled a higher percentage of minority students than did other Catholic high schools, 6 percent of the teachers were black, compared with 1.6 percent of the teachers in all Catholic high schools, and 5 percent of the teachers were Hispanic, compared with 3 percent of the teachers in all Catholic high schools (Benson et al., 1986; Yeager et al., 1985). In the inner-city elementary schools studied by Cibulka et al. (1982), 38 percent of the lay teachers and 11 percent of the religious teachers were black, while 5 percent of the lay teachers and 8 percent of the religious teachers were Hispanic.

Finally, evidence from *The Catholic High School: A National Portrait* indicates that the percentage of minority teachers is directly related to, but considerably less than, the percentage of minority students in the school. The data revealed the following relationships between minority compositions of students and teachers (Yeager et al., 1985, p. 44):

- 1.7 percent minority faculty in schools with from 3 percent to 5 percent minority students;
- 2.3 percent minority faculty in schools with from 6 percent to 10 percent minority students;
- 4.1 percent minority faculty in schools with from 11 percent to 25 percent minority students; and
- 18.6 percent minority faculty in schools with from 26 percent to 100 percent minority students.

PROFESSIONAL PREPARATION AND EXPERIENCE

Academic Preparation

The level of formal education, which is indicated by an academic degree, is one measure of the professional preparation for teaching. Teachers are professionals, who are expected to satisfy certain minimum standards. A common minimum standard for all teachers is the possession of a bachelor's degree.

The professional preparation of Catholic school teachers, as measured by their academic degrees, improved substantially between the early 1960's and the late 1980's. In 1962, about 62 percent of all teachers in Catholic schools (50 percent of elementary school teachers and 93 percent of secondary school teachers) possessed at least a bachelor's degree and about 15 percent (7 percent of elementary school teachers and 38 percent of secondary school teachers) possessed a graduate degree (Neuwien, 1966). Overall, these percentages were lower, and in the case of Catholic elementary schools, much lower, than those for public school teachers.²

The common practice of religious communities to assign some members to teach in elementary schools prior to the completion of their academic degrees partly contributed to the much lower likelihood that a teacher in a Catholic elementary school would possess a bachelor's degree, compared with a teacher in a Catholic high school. In addition, in order to keep up with the demands of increasing enrollments, many of the lay teachers hired during the 1950's and early 1960's did not have a bachelor's degree. Neuwien (1966), for example, reported that over two-thirds (68.4 percent) of the nearly 29,000 lay women teaching in Catholic elementary schools in 1962 had not completed college.

The percentages of Catholic school teachers with bachelor's and graduate degrees consistently increased from the early 1960's through the 1980's. By 1986, virtually all (97 percent) Catholic school teachers held at least a bachelor's degree and almost a third (30 percent) had attained a graduate degree (Snyder, 1989).³ The following are some notable trends concerning the academic preparation of Catholic school teachers between the early 1960's and the late 1980's.

The percentage of Catholic school teachers with graduate degrees increased from approximately 7 percent in 1962 to over 20 percent in 1988 on the elementary level (McMillen, 1990) and from approximately 38 percent in 1962 to 52 percent in 1984 on the secondary level (Yeager et al., 1985).

Catholic secondary school teachers were as likely as public secondary school teachers to have a graduate degree (Carroll, 1985; Greeley, 1985; McMillen, 1990; Morrison & Hodgkins, 1978; Yeager et al., 1985); however, Catholic elementary school

teachers were much less likely than public elementary school teachers to have a graduate degree (McMillen, 1990; Morrison & Hodgkins, 1978; Snyder, 1989).

At both Catholic elementary and secondary levels, religious teachers were two to three times more likely to possess a graduate degree than were lay teachers (Benson & Guerra, 1985; Benson et al., 1986; Cibulka et al., 1982; Neuwien, 1966).

The emphasis on teacher preparation and accountability, the availability of more college graduates who majored in education,⁴ more competition for teaching positions as the enrollment of all schools began to decline, the expectations of the profession, and the changes in the formation programs of religious communities contributed to the increased formal academic training of Catholic school teachers.

Certification

Certification by a state agency is another measure of the adequacy of a teacher's professional preparation. Dioceses usually have special programs for the certification of religion teachers, and many dioceses have their own certification for Catholic school teachers in lieu of certification by the state. In some cases, a teacher who possesses the qualifications for state certification may not actually possess a state certificate because a particular school or diocese does not require it.

Very little national data are available concerning the certification of Catholic elementary school teachers and Catholic high school teachers. In Cibulka's study of inner-city elementary schools (Cibulka et al., 1982), 59 percent of the teachers were certified, 31 percent had the qualifications for certification, and 10 percent were not certified. Of the Catholic elementary school teachers who responded to surveys administered as part of diocesan strategic planning studies, 69 percent in Washington (Ciriello, 1988), 73 percent in Corpus Christi (Convey, 1989b), and 87 percent in Boston (Tarr, 1990a) reported they were certified.

In *The Catholic High School: A National Portrait*, principals of Catholic high schools reported that 88 percent of their full-time teachers were either certified or possessed the prerequisites for certification by a state education agency. Yeager and his colleagues (Yeager et al., 1985) noted that the percentage of certified or certifiable teachers was likely higher than 88 percent, since certification was not relevant for full-time high school teachers. Carroll (1985), using the data from teachers' surveys in *High School and Beyond*, found that 64 percent of Catholic high school teachers in 1984 held state certification. Seventy-nine percent of the Catholic high school teachers in Boston, who responded to teacher surveys as part of the diocesan strategic planning study, reported they were certified by the state (Tarr, 1990a).

Teaching Experience

Data from *High School and Beyond* and from the National Center for Education Statistics indicated that, on average, Catholic high school teachers had fewer years of teaching experience than public high school teachers, but more years of teaching experience than teachers in other private high schools (Benson & McMillen, 1991; Carroll, 1985; Snyder, 1989).

The *High School and Beyond* data revealed that 27 percent of Catholic high school teachers in 1984 had taught fewer than five years, compared with 15 percent of public high school teachers and 33 percent of other private high school teachers (see Table 6-3). Nineteen percent of Catholic high

school teachers had more than 20 years' teaching experience, compared with 26 percent of public school teachers and 13 percent of other private school teachers.

The data from the National Center for Education Statistics showed that during the 1985-86 school year, just over one in five teachers (20.8 percent) in Catholic schools, both elementary and secondary, had fewer than five years of teaching experience (Snyder, 1989). About one in four (24.5 percent) had taught between five and nine years, and more than one in two (54.8 percent) at least 10 years. For the same year, 12 percent of public school teachers had fewer than five years of teaching experience, 21 percent had between five and nine years of experience, and 67 percent had 10 or more years of experience. Based on the data reported by Carroll (1985) and Snyder (1989), Catholic elementary school teachers had slightly more teaching experience than did Catholic secondary school teachers.

The Catholic High School: A National Portrait provides a snapshot of the turnover of teachers in Catholic high schools, which from all indications was rather high. While 73 percent of Catholic high school teachers in 1984 had at least five years of teaching experience (Carroll, 1985), more than half (54 percent) had taught in their particular schools for five years or less and more than a fourth (28 percent) had taught there for at most two years (Yeager et al., 1985). Although they did not present data specifically for Catholic school teachers, Ogle, Alsalam, and Rogers (1991) reported that between 1986 and 1987, the rate of private school teachers leaving the profession (8 percent) was twice that of public school teachers (4 percent). In addition, 9 percent of the private school teachers in 1986 were teaching elsewhere (in a different school, public or private) in 1987. The three most prominent groups of former private school teachers were those who had a non-teaching job (37 percent), those involved in homemaking or childrearing (27 percent), and those who were pursuing further education (14 percent).

Catholic School Background

How many Catholic school teachers themselves attended Catholic schools? In the preceding chapter, the argument was made that teachers are indispensable to the school's ability to develop effectively a vital faith community. Seemingly, teachers who themselves experienced the faith community of a Catholic school as students should be more able than other teachers to contribute effectively to the development of the community in the school in which they teach.

Two studies provided national estimates of the number of Catholic school teachers who attended Catholic schools as students. Kraushaar (1972, p. 112) reported that over two-thirds of the 294 Catholic school teachers in his 1969 representative sample attended Catholic schools. The percentages he reported, 67 percent attending an elementary school and 71 percent attending a secondary school, included all nonpublic schools; however, the vast majority of these were Catholic schools. Benson and Guerra (1985) indicated that 62 percent of the lay teachers in Catholic high schools in 1984 had attended Catholic elementary schools and 66 percent had attended Catholic secondary schools. The corresponding percentages of religious teachers in Catholic high schools in 1984 who had attended Catholic schools were somewhat higher. Seventy-three percent of the religious teachers had attended Catholic elementary schools and 82 percent had attended Catholic high schools.

GOAL CONSENSUS

Value consensus among teachers and their agreement on goals and objectives are characteristics of effective schools (Anderson, 1982; Chubb & Moe, 1990; Purkey & Smith, 1985; Rutter et al., 1979). The instructional goals that teachers emphasize provide keys to understanding a school's orientation, philosophy, and environment. Research shows that Catholic elementary and secondary schools have a critical mass of teachers who place primary emphasis on goals that are special to the mission of Catholic schools (Benson et al., 1986; Ciriello, 1988; Convey, 1989b; Tarr, 1990a). In addition, Catholic school teachers more than public school teachers perceive that the goals of their schools are clearer, and they are more in agreement among themselves concerning the goals and policies of their schools than are public school teachers (Chubb & Moe, 1988; McMillen, 1988).

Private schools tend to hire teachers who endorse the school's mission. The national data reported by McMillen (1990) revealed that private school teachers were much more likely than were public school teachers to indicate that their schools had clear goals and priorities (56 percent, compared with 40 percent) and their colleagues agreed on the school's central mission (59 percent, compared with 36 percent). Like other private school principals, Catholic school principals recruit teachers who subscribe to similar goals, which include academic excellence, faith development, and the formation of community (Yeager et al., 1985). The resulting high agreement on goals and values is a source of the Catholic school teacher's authority, collegiality, and sense of efficacy (Grant, 1988; Salganik & Karweit, 1982).

The three major sources of data concerning the goals of Catholic school teachers are the National Center for Education Statistics, the NCEA study on low-income-serving Catholic high schools, and diocesan strategic planning studies.

The research from the National Center for Education Statistics (McMillen, 1988) showed that Catholic high school teachers demonstrated slightly higher levels of consensus on values and goals than public high school teachers. Eighty percent of Catholic school teachers, compared with 72 percent of public high school teachers, agreed that their colleagues shared their beliefs and values about the school's mission. In addition, Catholic high school teachers were more balanced than were public high school teachers in their prioritization of their personal instructional goals (see Table 6-4). Catholic high school teachers identified a combination of religious, academic, and personal-development goals as those which they most emphasized, whereas public high school teachers tended to place primary emphasis on academic goals and only secondary emphasis on personal-development goals.

The data for the study came from the *High School and Beyond Administrator and Teacher Survey* (ATS), administered in 1984, and from the *1985-86 Private School Survey*. The teachers ranked eight goals in order of priority for their teaching. Two of the three instructional goals selected most often by public high school teachers were academic in nature. Sixty-one percent of the public school teachers ranked the "development of literacy skills" and 33 percent ranked "academic excellence" as first or second among the goals that they emphasized in their teaching. In addition, almost half the public school teachers selected "good work habits and self discipline," which might be characterized as a personal-development goal with an academic nuance, in first or second place among the goals that they emphasized.

While many Catholic high school teachers also emphasized academic goals (42 percent selected "literacy skills" and 30 percent selected "academic excellence"), they accorded other goals higher

priority than did public high school teachers. Catholic school teachers placed more emphasis than did public school teachers on "moral or religious values" (41 percent, compared with 10 percent) and on "personal growth" (37 percent, compared with 23 percent). The goal, "human relations skills," received about the same emphasis from teachers in Catholic high schools (14 percent) and public high schools (15 percent), and few teachers placed primary emphasis on specific occupational skills and citizenship.

Despite being strictly descriptive, McMillen's study was significant because it enabled the comparison of the emphasis Catholic high school teachers placed on certain goals with the emphasis public high school teachers placed on these same goals. However, the mission-related goals, which Catholic schools emphasize but are not necessarily appropriate for public schools, were not among the eight goals ranked by the teachers in McMillen's study.

Benson and his associates (Benson et al., 1986) developed a set of 14 educational goals that better represented the essence of a Catholic school than did the set used by McMillen. In their study on low-income-serving Catholic high schools, they asked the teachers to rank order from among these 14 goals the seven that were most important to them in their teaching. Table 6-5 shows the five goals most often selected by three groups of teachers: religious, Catholic lay, and non-Catholic. The goal of "developing high moral standards and citizenship" received a high priority from all three groups of teachers. The average scores from each group placed this goal either first or second in importance. "Promoting critical thinking skills" also was included among the top five goals by each group of teachers, with non-Catholic teachers ranking it first. In addition to these goals, the religious teachers tended to emphasize goals that reflected the special nature of Catholic schools (fostering spiritual development; encouraging student understanding, acceptance, and participation in the Catholic Church; and building community among faculty, students, and parents), while the lay teachers emphasized personal-development and academic goals (preparing students for college; developing individual responsibility for the management of one's own learning program; teaching life skills; and teaching students how to get along).

Each of the previous studies examined the instructional goals of Catholic high school teachers. To date, there has not been a national study of the instructional goals of Catholic elementary school teachers. The goals that Catholic elementary school teachers emphasize may well be different than the goals emphasized by Catholic high school teachers. For example, most Catholic elementary school teachers teach religion, compared with only a fraction of Catholic high school teachers. Religion teachers normally emphasize instructional goals that are directly related to the mission of Catholic schools. High school teachers are subject-area specialists, who normally emphasize the instructional goals that are most relevant to their subject.

Surveys of teachers from strategic planning studies in the Archdiocese of Boston, the Archdiocese of Washington, and the Diocese of Corpus Christi (Ciriello, 1988; Convey, 1986b, 1989b; Tarr, 1990a) provided some insights concerning the instructional goals of Catholic elementary school teachers and the degree of consensus among the teachers about the primary mission of the school. The teachers were asked to select the most important goal in their teaching from among a set of nine instructional goals. The goals were based on those used in McMillen's analysis, except for the addition of "spiritual development," "learning Catholic doctrine," and "critical thinking skills"; the combination of "literacy skills" and "academic excellence"; and the deletion of "occupational skills." Table 6-6 shows the prioritization of instructional goals by Catholic elementary school lay teachers in these dioceses.

Mission-related and personal-development instructional goals received more emphasis from the

lay teachers in all three dioceses than did academic and societal goals. About three in four lay teachers in each diocese selected either a mission-related or personal-development goal, with the teachers in both Washington and Corpus Christi placing more emphasis on mission-related goals and those in Boston placing more emphasis on personal-development goals. About one in five lay teachers in Washington and Corpus Christi and about one in four lay teachers in Boston selected an academic goal as the one that received the most emphasis in their instruction.

In addition, the teachers in each diocese demonstrated a high level of agreement regarding consensus about the school's mission. The results presented by Tarr (1990b) for teachers in the Archdiocese of Boston are typical: over 93 percent of the elementary school teachers and over 80 percent of the secondary school teachers agreed that their colleagues shared their beliefs and values concerning the school's mission.

Teachers, especially lay teachers, decide to work in Catholic schools for a variety of reasons. Ciriello (1988) used teachers' primary reasons for working in the school to classify them into three groups: mission-related, profession-related, and job-related. Teachers who have primarily a mission-related orientation emphasized sharing their values, witnessing their faith, ministry, a sense of vocation or God's call, or a commitment to Catholic schools as reasons for working in Catholic schools. Teachers with primarily a profession-related orientation emphasized the love of teaching, a desire to work with young people, their own personal growth and development, or a desire to teach in their area of expertise. Finally, teachers with primarily a job-related orientation emphasized the gaining of experience, desire to earn extra money, compatible schedule, salary, or unavailability of other jobs as reasons for teaching in the school.

In Boston (Tarr, 1990a), Corpus Christi (Convey, 1989b), and Washington (Ciriello, 1988), the elementary teachers with a mission-related orientation ranked mission-related goals (moral and religious values, spiritual development, and teaching Catholic doctrine) higher in importance than did teachers with the other primary orientations. Mission-oriented teachers also indicated that they were more likely to devote their careers to teaching in Catholic schools. More than the other teachers, those with mission-related orientations agreed that they had an important role to play in the spiritual development of their students and that the need for Catholic schools is at least as great as it was 25 years ago. Finally, these teachers reported that they were more active in their parishes and viewed religion as being more important in their lives than did the teachers with other primary orientations (Convey, 1989b).

WORK CONDITIONS

Research shows that the school's environment and the relationships that teachers establish with other members of the school community are important determinants of teacher satisfaction, success, and longevity, and of student achievement. Of particular importance are those aspects of teaching associated with the workplace that teachers perceive as rewards. Four areas that provide particularly important rewards for teachers are: (1) relationships with the school's administrators; (2) self-determination of the conduct of their classes; (3) relationships with their fellow teachers; and (4) interactions with students (Kottkamp, Provenzo, & Cohn, 1986; Lortie, 1975).

Rapport with Administrators

The relationship of administrators with teachers is particularly important in creating a climate

that encourages student achievement (Anderson, 1982). Administrative support for and recognition of teachers contributes to the teachers' performance and their sense of unity and cooperation (Firestone & Rosenblum, 1988; Newmann et al., 1989). Furthermore, lack of administrative support and the isolation of teachers from administrators reduce commitment and increase the likelihood that individuals will leave teaching (Firestone & Rosenblum, 1988).

Research shows that Catholic school teachers had higher evaluations of their principals' support, encouragement, and leadership than did public school teachers (Lee et al., 1991; McMillen, 1988; Morton, 1979; Pallas, 1988). Data from ATS and the 1985-86 *Private School Survey* showed that a significantly higher percentage of Catholic school teachers than public school teachers agreed that:

The principal communicates desires to staff (81 percent, compared with 67 percent);

The administration knows problems faced by staff (79 percent, compared with 61 percent);

The administration is supportive and encouraging of staff (81 percent, compared with 67 percent);

The principal lets staff know expectations (83 percent, compared with 69 percent).

Using the ATS data and controlling for the differences in student composition between Catholic and public schools, Pallas (1988) reported that 59 percent of the Catholic school teachers reported positive climate regarding the principal leadership, compared with 50 percent of the public school teachers. Lee et al. (1991) also used the ATS data and hierarchical linear model analysis to explore the relationship between school organization and teachers' efficacy and satisfaction. They found that Catholic school teachers scored slightly more than a third of a standard deviation higher on ratings of principal leadership and administrative responsiveness and more than a half of a standard deviation higher on encouragement of innovation than did public school teachers. Finally, Morton (1979) reported that Catholic elementary school teachers in Rhode Island were more satisfied with the support of administrators than were public school teachers.

Participation in Decision-making

Studies on effective schools have demonstrated the importance of teachers sharing in making decisions, not only about what transpires in their own classrooms, but also about school policy (Anderson, 1982; Wynne, 1980). Autonomy and control over the affairs of the workplace enhance a teacher's commitment. Such conditions as assisting in establishing the discipline code, being free to innovate, and participating in the development of their schedules, all help teachers to increase their sense of control and autonomy (Firestone & Rosenblum, 1988). Research demonstrates that teacher participation in decision-making relates to achievement in high schools (Rutter et al., 1979) and to successful elementary schools (Phi Delta Kappa, 1980).

Based on their analysis of the data from *High School and Beyond*, Chubb and Moe (1988) argued that Catholic schools more than public schools delegate significant discretion to teachers. According to Chubb and Moe, the involvement of Catholic school teachers in significant school-level policy decisions made the teachers feel efficacious. As a result, Catholic school teachers felt that they had more influence over matters of school policy and more control over their own instructional decisions than public school teachers. In addition, other researchers found that

Catholic school teachers (80 percent) more than public school teachers (63 percent) agreed with their principals on the school's discipline policy (McMillen, 1988), more Catholic school teachers (81 percent) than public school teachers (66 percent) reported high participation in decision-making (Pallas, 1988), and Catholic school teachers scored more than one and a half standard deviations higher, a very large difference, on their ratings of participation in decision-making (Lee et al., 1991).

Most teachers in the NCEA study on low-income-serving Catholic high schools reported a high amount of influence concerning their own classroom policies (Benson et al., 1986). Over 90 percent of the teachers reported significant influence in the choice of their teaching methods and over 70 percent in selecting the content of their courses. However, far fewer teachers thought they had a lot of influence on school policy. Less than a third reported they had a great deal of influence in forming the school's discipline policy and less than a fifth felt they had a voice in establishing the school's goals, objectives, and curriculum. Very few teachers, less than 5 percent, felt they had much influence concerning the policy governing admissions and graduation, hiring new teachers, and the school's budget.

Benson and his colleagues (Benson et al., 1986, p. 137) also reported that 72 percent of the teachers rated their school at least satisfactory at involving teachers in decision-making. At the same time, some teachers expressed frustration regarding their lack of influence on school policy. Catholic lay teachers (35 percent) expressed more dissatisfaction about a lack of influence than did religious (30 percent) and non-Catholic (29 percent) teachers. Religious perceived they had slightly greater influence than lay teachers in hiring new teachers, determining the budget, setting school goals and objectives, and establishing admissions' policy; however, as Benson noted, "no group considers itself really influential in these areas" (p. 137).

Collegiality

Teacher relationships with other teachers are critical elements in forming the school's climate (Anderson, 1982; Phi Delta Kappa, 1980; Purkey & Smith, 1985; Rutter et al., 1979; Wynne, 1980). Collegial support is one of the intrinsic rewards of teaching, which research has identified as an important determinant of teacher satisfaction (Kottkamp et al., 1986; Lortie, 1975). This support, which flows from the community structure of the school and which accompanies a high sense of community, makes teachers more effective by helping them to manage a demanding job, by reducing their sense of isolation, and by increasing their satisfaction and sense of professionalism, thereby contributing to their students' achievement (Bryk & Driscoll, 1988; Culver, Wolfe, & Cross, 1990; Little, 1982; Rosenholtz, 1985).

One of the important findings from *High School and Beyond* regarding teachers was that Catholic high school teachers enjoyed higher levels of collegiality than public high school teachers (Chubb & Moe, 1988, 1990; Lee et al., 1991). As indicated in Table 6-7, teachers in Catholic schools much more than teachers in public schools affirmed that a cooperative spirit existed among the staff and that the school seemed like a big family (McMillen, 1988). The results of Lee et al.'s (1991) study showed that Catholic school teachers had a higher sense of community (.8 standard deviation), more collaboration time with other teachers (.5 standard deviation), and more knowledge of other teachers' courses (.47 standard deviation) than did public school teachers.

Relationships with Students

One of the great strengths of a Catholic school is its sense of community, which the teachers play

a major role in creating. The nature of the relationships between the teachers and their students is an important factor in developing community in the school.

Theorists generally acknowledge both the responsibility for and the importance of teacher-student relationships, both in and outside of the classroom. Bryk and Driscoll (1988) spoke of the extended teacher role, by which teachers have broad responsibilities that go beyond specific classroom duties. This extended teacher role, which contributes to the school's coherence (Wynne, 1980) and is related to achievement (Phi Delta Kappa, 1980), is a strong characteristic of Catholic schools (Bryk et al., 1984). Data from both teachers and students show that teachers in Catholic schools make substantial efforts to give personal attention to students, both in and outside of the classroom.

Principals and teachers in Catholic high schools place a high priority on creating a caring environment in the school. In *The Catholic High School: A National Portrait*, 77 percent of the principals reported as outstanding or excellent, and another 20 percent reported as satisfactory, the school's attempt to create a caring environment. The principals also identified the presence of a caring environment among the 12 most common achievements in Catholic high schools and 82 percent of them ranked the school high in its sense of community (Yeager et al., 1985).

Benson and his colleagues (Benson et al., 1986) found that over 80 percent of the teachers from the low-income-serving Catholic high schools in their study reported that they frequently or very frequently gave individual attention to students outside of class. Castelli and Gremellion (1987) noted that the everyday religious emphasis in the school, which was manifested in such examples as praying for a sick child, fostered an ethic of caring that resulted in genuine concern for each other in the school community. The vast majority of teachers in Catholic schools placed a high priority on their need to help students develop compassion (82 percent) and to help promote a deep sense of community in the school (70 percent) (Benson & Guerra, 1985).

COMMITMENT AND SATISFACTION

The literature on effective schools has identified the importance to schools of committed and satisfied teachers (Chubb & Moe, 1988; Purkey & Smith, 1983; Rosenholtz, 1989; Rutter et al., 1979). Teachers who are the most committed often are the most satisfied. Studies have shown that commitment and a communally-organized school are among the most important contributors to teacher satisfaction (Bryk & Driscoll, 1988; Culver, Wolfe & Cross, 1990).

In organizational theory, commitment often is seen as resulting from job satisfaction (Firestone & Rosenblum, 1988). Another view is that commitment results from sharing values in common with a group (Salganik & Karweit, 1982). These views imply that commitment is a consequence of satisfying work and collegial experiences. In some cases, however, commitment precedes actual work experiences. When this occurs, the collegial associations and the personal satisfaction that individuals experience serve to support or, in some cases to diminish, their commitment, rather than stand as its primary source.

Commitment

Teacher commitment is multidimensional. In addition to a commitment to teaching, teachers develop commitments to students and to specific schools (Firestone & Rosenblum, 1988). Catholic

school teachers also often exhibit a mission-related commitment, which the literature refers to as commitment to the organization (Ciriello, 1988). This commitment, which is independent of a specific school, results from the belief in the mission and purpose of Catholic schools.

Commitment to Teaching

Commitment to teaching, which leads to strong attachment to the professional aspects of teaching and to an interest in student achievement, results from the fulfillment teachers experience in the classroom as they engage in teaching. Studies from NCEA, especially *Sharing the Faith: The Belief and Values of Catholic High School Teachers* and *Catholic High Schools: Their Impact on Low-Income Students*, and the diocesan teacher surveys have shown that the love of teaching was an important, often the most important, determinant of Catholic school teachers working at a particular school. Public school teachers have expressed a similar sentiment when asked to prioritize their reasons for teaching (Lortie, 1975).

Both Catholic and non-Catholic lay teachers in the NCEA studies demonstrated their commitment to teaching by most often selecting two predominantly educational reasons as their primary one for teaching in a Catholic high school (Benson & Guerra, 1985; Benson et al., 1986). The reason selected most often by the teachers, "desire to teach in this kind of educational environment," depending upon the emphasis and interpretation the teachers placed on "this kind of educational environment," also could signify commitment to the school and/or commitment to mission, in addition to commitment to teaching. "Love of teaching" was the reason selected next by the teachers.

The commitment to teaching of the elementary school teachers who responded to diocesan teacher surveys also was evident (Ciriello, 1988; Convey, 1989b; Tarr, 1990a, 1990b). These teachers most often selected "love of teaching" as their primary reason for teaching in the school (see Table 6-8), and at least 40 percent of them in each diocese placed this factor among the three most important reasons for teaching in the school. Moreover, teachers' satisfaction with their students' achievements and, especially among high school teachers, the opportunity to teach in their area of expertise, were important factors for wishing to remain at their schools (Convey, 1989b; Tarr, 1990a).

Commitment to Students

Commitment to students flows from the satisfaction teachers experience in their relationships with their students. This commitment leads to strong emotional bonds with students and often a personal caring for them. The personal interest of teachers in students also fosters a social bonding of these students to the school and enhances school spirit (Bryk & Driscoll, 1988). In addition, a good teacher exhibits a certain level of respect for students, which students recognize (Firestone & Rosenblum, 1988).

The desire to work with children and adolescents, which indicates a level of commitment to students, is another goal that Catholic high school and elementary school teachers rate high in importance (Benson & Guerra, 1985; Benson et al., 1986; Ciriello, 1988; Convey, 1989b; Tarr, 1990a, 1990b). In the diocesan planning studies, for example, about a third of the elementary school teachers in the three dioceses selected "desire to work with young people" among the three most important reasons for teaching in the school.

Research on public school teachers demonstrates a strong relationship between students' perceptions of teacher performance and their perceptions of the personal interest on the part of the teacher. Sixty-nine percent of students who said their teachers had shown strong personal interest in them gave excellent evaluations of their teachers, compared with only 25 percent of those who rated their teachers' level of personal interest as weak (Louis Harris and Associates, 1988). According to the perceptions of their students, Catholic school teachers as a group demonstrate higher levels of commitment to students than public school teachers. Catholic school students, more than public school students, have affirmed the concern, involvement, and personal interest of their teachers. In *High School and Beyond*, Catholic high school students were twice as likely as public high school students to rate teacher interest in students as excellent (Coleman et al., 1982). In addition, Catholic school students (73 percent) were more likely than public school students (61 percent) to indicate that more than a few teachers in the school treated everyone with respect (Carroll, 1984). Moreover, Catholic school students were less likely than were public school students to indicate that few or no teachers were interested in students outside of class. The percentage of the Catholic school students who indicated that more than a few teachers were interested in students outside of class (37 percent), however, was considerably less than the percentages reported by Elford (1973), who had found in a survey of students from Washington-area Catholic schools that 80 percent of the elementary school students and 77 percent of the secondary school students indicated that teachers did not mind helping them after school.

Commitment to the School

Commitment to a specific school, which develops from satisfying working conditions and gratifying social bonds (Firestone & Rosenblum, 1988), results in a special loyalty to the school. The foundations of this commitment derive from goal consensus, group cohesiveness, relationships with the administrators and students in the school, and opportunities for shared decision-making. Studies that were reviewed in the previous section of this chapter showed that Catholic school teachers generally were more positive in their assessment of these factors than were public school teachers. In addition, only 2 percent of Catholic high school principals who responded to a national survey conducted by the National Institute of Education in the late 1970's, compared with 15 percent of public school principals, complained that teacher lack of commitment was a serious problem in their schools (Hannaway & Abramowitz, 1985).

Commitment to Mission

A Catholic school attracts many teachers because of their desire to minister to the school's faith community. When teaching is viewed as a ministry and not simply as a profession, commitment can precede the actual collegial and work experiences of individuals. That is, individuals may choose to teach in a particular school because of their strong belief in the school's mission and goals.

The studies from NCEA and the diocesan teacher surveys confirmed that a substantial number of teachers work in Catholic schools primarily because of their commitment to the ideals of Catholic education or for some other mission-related reason, such as "desire to work in a Catholic environment," "God's choice for my life," "view of teaching as ministry," and "opportunity to witness to my faith."

The view of teaching as ministry is an essential component in the development of the school's faith

community. For religious teachers, the sense of ministry flows from their religious vocations and commitment. The research clearly shows that religious reasons, such as the sense of ministry and commitment to Catholic education, along with professional reasons, such as working with young people and the love of teaching, are important reasons why many lay teachers choose to teach in Catholic schools. Among lay teachers, the view of teaching as a ministry became more prominent as the number of teachers from religious communities declined. Benson and Guerra (1985) speculated that the growing awareness on the part of lay teachers to view teaching as ministry and to assume some responsibility for the religious mission of the Catholic school is a reflection of a new appreciation of shared ministries within the church.

The lay teachers in *Catholic Schools in Action*, who constituted about 30 percent of the elementary school teachers and 27 percent of the secondary school teachers, viewed their teaching as an opportunity to provide an example of Christian life in a way different from and beyond that of the religious (Neuwien, 1966). Kraushaar (1972) asked the teachers in his study to identify why they taught in a nonpublic school. The three reasons that Catholic school teachers selected most frequently as either important or very important were the school's religious atmosphere (76 percent), sense of community (60 percent), and educational philosophy (55 percent). Cibulka and his colleagues (Cibulka et al., 1982) arrived at similar findings. They found that the two main reasons attracting teachers to the inner-city elementary schools in their study were the school's religious environment and its community, which was evident in the harmonious working relations among the administrators, faculty, parents, and students.

Some studies attempted to isolate the primary reasons that motivated teachers to work in Catholic schools by requesting teachers to prioritize their reasons for teaching. Table 6-8 shows the percentages of teachers from Catholic elementary schools in selected dioceses who chose the most important reason for teaching in their particular schools from among 28 possible reasons. The reasons that were selected most often by the teachers were very consistent across the three dioceses. Two of the reasons, which indicated a commitment to teaching and a commitment to students, would likely be shared by virtually all teachers. These were the "love of teaching" and "desire to work with young people." The other reasons, however, were special to Catholic schools: "commitment to Catholic education," "God's choice for my life," "desire to work in a Catholic environment," "view of teaching as ministry," and "opportunity to witness to my faith."

Benson and Guerra (1985) also asked the Catholic high school teachers in their study to prioritize their reasons for teaching in the school. From among the 12 reasons offered as primary motivations for teaching in the school, the three reasons most frequently selected by religious teachers indicated their commitment to mission. In first place (selected by 30 percent of the religious teachers) was "view of teaching as ministry," followed by "God's choice for my life," and "opportunity to witness to my faith."

As previously noted, Catholic lay teachers (39 percent) most often selected as their primary reason the "desire to teach in this kind of educational environment," which may have indicated to some teachers a commitment to mission. Many lay teachers demonstrated an explicit commitment to mission in making their primary choices. Following the "love of teaching," which the next highest number of lay teachers selected, were the same three reasons selected by the religious teachers as primary: "view of teaching as ministry," "God's choice for my life," and "opportunity to witness to my faith." In addition, teachers from low-income high schools also selected "desire to teach in this educational environment" most often as their most important reason, but selected "view of teaching as ministry" next in order of importance (Benson et al., 1986).

Satisfaction

Satisfied teachers are indispensable to good schools. A core of satisfied teachers is one indicator of a school's quality (Goodlad, 1984). What are the factors that contribute to a teacher's sense of satisfaction with his or her work?

Teacher satisfaction is a function of both intrinsic and extrinsic factors (Ciriello, 1988; Lee et al., 1991; Lortie, 1975). The intrinsic factors concern the nature of the work itself. Satisfied teachers find their work stimulating and challenging, they derive a sense of accomplishment from their teaching, and they feel that they are efficacious. The extrinsic or organizational factors, which Lortie (1975) also referred to as psychic rewards, concern the school's environment and other working conditions, such as relationships with students and other teachers, school and classroom discipline, self-determination regarding their classes, input concerning school policy, administrative and parental support, adequate recognition for their teaching, opportunities for advancement, and salary and benefits.

Different authors have placed different emphasis on the major contributors to a teacher's sense of satisfaction; however, in every case the major contributors are intrinsic rather than extrinsic factors. Lortie (1975) and Kottkamp et al. (1986) found that such rewards as collegiality, self-determination, and favorable relationships with students were more important for teachers than salary and economic security. For Maeroff (1991), satisfaction depends upon teacher empowerment, which flows from the teacher's status, professional knowledge, and access to decision-making. Bryk and Driscoll (1988) argued that a teacher's satisfaction, sense of efficacy, and morale are direct and immediate consequences of a communal school organization. Lee et al. (1991) found that community is the strongest predictor of teacher efficacy and satisfaction. Rosenholtz (1989) believed that satisfaction results from a teacher's sense of independence, worth, and competence. Finally, Culver et al. (1990) identified a teacher's commitment, the value consensus in the school, and the nature of collegial relationships as the major influences on satisfaction.

Efficacy

Efficacy refers to teachers' belief in their ability to have a positive effect on student learning and to their belief that their presence has a positive impact on the school community. Studies have found that teacher efficacy is positively related to student achievement (Ashton & Webb, 1986; Brookover et al., 1979; Denham & Michael, 1981; Rosenholtz, 1985, 1989; Rutter et al., 1979).

An examination of the correlates of teacher efficacy reveals that Catholic school teachers, on average, are likely to feel more efficacious than public school teachers. First, research shows that teachers in high-achieving schools have a greater sense of efficacy than teachers in low-achieving schools (Chubb & Moe, 1990; Grant, 1988). The research reviewed in Chapter 4 indicated that Catholic schools were more likely than were public schools to have high achievement.

Second, an orderly disciplinary climate increases a teacher's sense of efficacy (Metz, 1986). Catholic schools are characterized by their sense of discipline and order (see Chapter 5).

Third, value consensus among the members of the school community increases a teacher's sense of efficacy (Salganik & Karweit, 1982). Agreement on the school's goals and objectives is likely to be higher, and greater consensus concerning the values commonly held by the members of the school's community is more likely to occur in Catholic schools than in public schools.

Fourth, administrators' responsiveness to teachers and their involvement of teachers in decision-making increases the teachers' sense of efficacy (Newmann et al., 1989). The research reviewed earlier in this chapter indicated that Catholic school teachers rated administrator responsiveness higher than did public school teachers. Furthermore, Catholic school teachers, to a greater extent than public school teachers, perceived that they had some role in forming school-level policy.

Fifth, teacher efficacy is higher in schools that have a high sense of community (Bryk & Driscoll, 1988; Newmann et al., 1989). A hallmark of Catholic schools is their sense of community.

Lee, Dedrick, and Smith (1991) provided the most detailed and careful analysis of the factors related to teacher efficacy. Using the ATS data from *High School and Beyond* and statistical analyses based on hierarchical linear models, they first showed that the average teacher efficacy, adjusted for student ability and teacher control, was almost .3 standard deviations higher in Catholic schools than in public schools, a statistically significant difference. Lee and her associates found, however, that the relationship between efficacy and teacher control was the same for Catholic school and public school teachers. When the researchers included the average socioeconomic status, size, and social organizational characteristics of schools as predictors, the differences in the average teacher efficacy between the Catholic and public schools disappeared. The results indicated that schools in which the teachers had greater control over their teaching, those with a stronger sense of community, and those in which the principal was seen as a strong leader had teachers with a higher sense of efficacy. In addition, teachers felt more efficacious in high SES and large schools. Lee and her associates concluded that organizational differences alone may explain differences in efficacy between teachers in Catholic and public schools.

Morale

Research indicates that staff morale has a positive effect on student learning and attitudes (Miller, 1981). Studies consistently have reported high morale among Catholic schools teachers, in some cases higher than the morale of a comparable group of public school teachers.

In *The Catholic High School: A National Portrait*, 90 percent of Catholic high school principals rated the morale of their teachers as high. The principals' average rating of teacher morale was 8.2 on a 10-point scale, with 10 indicating "very true of this school." In addition, the principals estimated that 93 percent of their teachers were satisfied with the school (Yeager et al., 1985). For these teachers, high morale was associated with a high sense of community ($r=.52$), high student morale ($r=.40$), effective discipline practices ($r=.38$), and an emphasis on religion ($r=.33$).

The vast majority of the teachers who participated in the NCEA study on low-income-serving Catholic high schools reported high morale and overall job satisfaction (Benson et al., 1986). Eighty-six percent of principals, 75 percent of teachers, and 74 percent of students rated the morale of the teachers high. In addition, 85 percent of the teachers (83 percent of Catholic lay teachers, 82 percent of non-Catholic teachers, and 92 percent of religious teachers) indicated they were at least somewhat satisfied with their current jobs (Benson et al., 1986). In comparison, 80 percent of public high school teachers reported similar levels of job satisfaction (Louis Harris and Associates, 1984).

Several studies which were based on the data from *High School and Beyond* documented that Catholic school teachers ranked higher than public school teachers on morale and overall satisfaction. Pallas (1988) found higher morale among Catholic high school teachers than among

public high school teachers. Using estimates obtained from the ATS data, Pallas reported that almost 85 percent of Catholic school teachers were positive in their assessment of staff morale, compared with 74 percent of public school teachers. These estimates controlled for demographic differences in the student mix of Catholic and public schools. Also, about half as many Catholic school teachers (12 percent) as public school teachers (21 percent) claimed that few or no teachers in their schools enjoyed their work (Carroll, 1984). Finally, Catholic school students were more likely than public school students to indicate that their teachers enjoyed their work, were patient and understanding, and treated them with respect (Bryk et al., 1984).

Dissatisfaction

While both intrinsic and extrinsic factors are important determinants of satisfaction, teacher dissatisfaction often is associated with perceived problems involving extrinsic factors. A survey of former public school teachers indicated that inadequate salary, poor working conditions, and lack of administrative support dominated their reasons for leaving the profession (Louis Harris and Associates, 1985). Sixty percent of the teachers cited inadequate salary as a major reason for leaving teaching. The other reasons cited most often by the teachers were lack of administrative support (17 percent), lack of discipline in the school (15 percent), no chance for advancement (15 percent), lack of input into educational decision-making (14 percent), and lack of parental support (13 percent). In addition, those still teaching, who were identified as "likely leavers," cited salary (65 percent) and working conditions (45 percent) as their primary sources of dissatisfaction (Louis Harris and Associates, 1985).

The one aspect of job satisfaction that Catholic school teachers consistently have found troublesome involves salaries and benefits. Low and inadequate salaries are major sources of dissatisfaction to many teachers and often constitute serious threats to the ability of teachers to continue working in Catholic schools (Benson et al., 1986; Bryk et al., 1984; Cibulka et al., 1982; Convey, 1989b; Kraushaar, 1972; Neuwien, 1966). For example, only 17 percent of the teachers who participated in the NCEA study on low-income-serving Catholic high schools agreed that their jobs allowed them the opportunity to earn a decent salary (Benson et al., 1986). Despite the dissatisfaction of many teachers with their salaries, recent research has found that teachers' satisfaction with their work is virtually unrelated to their salary levels (Lee et al., 1991).

The salaries of Catholic school teachers have lagged considerably behind those of public school teachers. Teachers from Catholic schools, compared with other teachers, generally have lower starting salaries, lower average salaries, and lower maximum salaries (Guerra & Donahue, 1990; Kealey, 1990). The average discrepancy between the salaries of Catholic school teachers and public school teachers has been about 40 percent to 45 percent less for elementary school teachers and 25 percent to 30 percent less for secondary school teachers (Bryk et al., 1984; Guerra & Donahue, 1990; Kealey, 1989; Snyder, 1989). For example, the average base salary in 1985-1986 for public school teachers was \$24,335, while the average base salary for Catholic school teachers was \$14,036, a difference of more than \$10,000 or 42 percent (Benson & McMillen, 1991). Lee et al. (1991) reported that the average salaries in Catholic high school were 33 percent lower than those in public high schools for the teachers who participated in the ATS survey in *High School and Beyond*.

Table 6-9, from *High School and Beyond*, provides a graphic illustration of the typical differences between salaries of Catholic school teachers and those from other schools. Over half the Catholic high school teachers in 1984 earned less than \$15,000, compared with 42 percent of teachers from

other private high schools and just 10 percent of public high school teachers. On the other hand, only 3 percent of Catholic high school teachers received a salary over \$25,000, compared with 9 percent of private school teachers and 31 percent of public school teachers.

Teacher salaries vary within the Catholic school sector as well. Lee and Smith (1990) found that female teachers in Catholic high schools earned significantly less than male teachers in Catholic high schools. The same gender discrepancy occurred also in public and other private high schools; however, the discrepancy was largest for Catholic high schools. On average, female teachers are paid about 10 percent less than male teachers. In addition, the discrepancies between the salaries of male and female Catholic school teachers is not uniform across subject areas. For example, Lee and Smith reported that males who taught science or mathematics earned about \$2000 more than those who taught other subjects; however, no differences in salaries occurred for females who taught science or mathematics and those who taught other subjects. Lee and Smith also found that of the few high schools offering merit pay, Catholic schools were slightly more likely than public schools to do so; however, only 15 percent of the Catholic school teachers from offering schools received a merit increase, compared with 34 percent of the public school teachers. These findings regarding differential pay for male and female teachers may explain Lee and Bryk's (1986) findings that the average starting salary in 1980 for all-girls' high schools, which generally have a high proportion of female teachers, was the lowest among types of Catholic schools and that for all-boys' high schools, which generally have a high proportion of male teachers, was the highest.

The Catholic school teachers in Boston, Corpus Christi, and Washington, who responded to surveys for the strategic planning studies in their respective dioceses, were asked to indicate whether any serious threats existed to their continuing to teach at their schools. About half the teachers reported that a serious threat indeed did exist and about half of that group (25 percent of all teachers) indicated that the principal threat was salary (Convey, 1986b; Convey, 1989b; Tarr, 1990b). Other serious threats identified most often after salary by the teachers were lack of support by the pastor and parish, discipline in the school, lack of advancement opportunities, lack of parental support, and poor communication in the school.

PERCEIVED TEACHER QUALITY

How do Catholic school students feel about the quality of their teachers? Research shows that the vast majority of Catholic school students, as well as public school students, rate the overall quality of their teachers as high (Bryk et al., 1984; Carroll, 1984; Greeley, 1982; Neuwien, 1966). However, in studies that included both Catholic school students and public school students, the overall ratings of teacher quality by Catholic school students were consistently higher than the overall ratings by public school students (Bryk et al., 1984; Carroll, 1984; Greeley, 1982; Lee & Bryk, 1989).

In *Catholic Schools in Action* (Neuwien, 1966), over 14,500 Catholic school students rated the effectiveness of their teachers. Over three-fourths of the students (76.4 percent) thought that their teachers from religious communities succeeded quite well in teaching their subjects and over two-thirds (70.1 percent) of the students thought the same about the lay teachers whom they had. Elementary school students, more often than secondary school students, and girls, more often than boys, gave the highest ratings to their teachers. In each case, the students gave higher ratings to religious teachers than to lay teachers. Girls in coeducational schools and boys in both all boys' and coeducational schools did not differ markedly in their ratings of their teachers' effectiveness; however, girls in single-sex schools gave significantly higher ratings to their teachers than did the

other students. Other variables that were related to the effectiveness ratings were the students' plans to continue their Catholic education, their friends' attendance at a Catholic school, their scholastic averages, and their own religiosity and that of their family. Students who were higher on these factors tended to give higher ratings to the effectiveness of religious teachers than to the effectiveness of lay teachers.

Except for *Catholic Schools in Action*, the data on perceptions of teacher quality come almost exclusively from *High School and Beyond*. In general, Catholic school students reported a higher quality of instruction than did public school students. Greeley (1982) found that, on average, Catholic school students were more than .6 standard deviation units higher than were public school students in their ratings of the quality of their teachers' instruction. White, black, and Hispanic students in Catholic schools were much more likely than their public school counterparts to rate highly their teachers' quality. The differences between the ratings of Catholic school teachers and public school teachers were higher for Hispanic students (.72 standard deviation units) than for black students (.62 standard deviation units) or white students (.61 standard deviation units). In addition, over 70 percent of the Catholic school students reported that at least half of their teachers made them work hard to learn, compared with 58 percent of public school students (Bryk et al., 1984).

The students in *High School and Beyond* also picked from a list of 10 characteristics those which an ideal teacher should possess and then rated their teachers on these characteristics. Although Catholic high school and public high school students agreed on the five most important characteristics of an ideal teacher, the Catholic school students more than the public school students felt that most teachers in their schools possessed these characteristics (Carroll, 1984). At least 80 percent of the students in both Catholic and public schools agreed that making clear presentations, treating everyone with respect, enjoying work, and having patience and understanding were hallmarks of ideal teachers. Also, about three-fourths of the Catholic school students and two-thirds of the public school students agreed that ideal teachers don't talk over students' heads. However, except possibly for this last characteristic (22 percent to 24 percent), Catholic school students were less likely than were public school students to indicate that few or none of their teachers made clear presentations (15 percent, compared with 23 percent), enjoyed their work (12 percent, compared with 21 percent), treated everyone with respect (27 percent, compared with 39 percent), and were patient and understanding (26 percent, compared with 37 percent).

SUMMARY

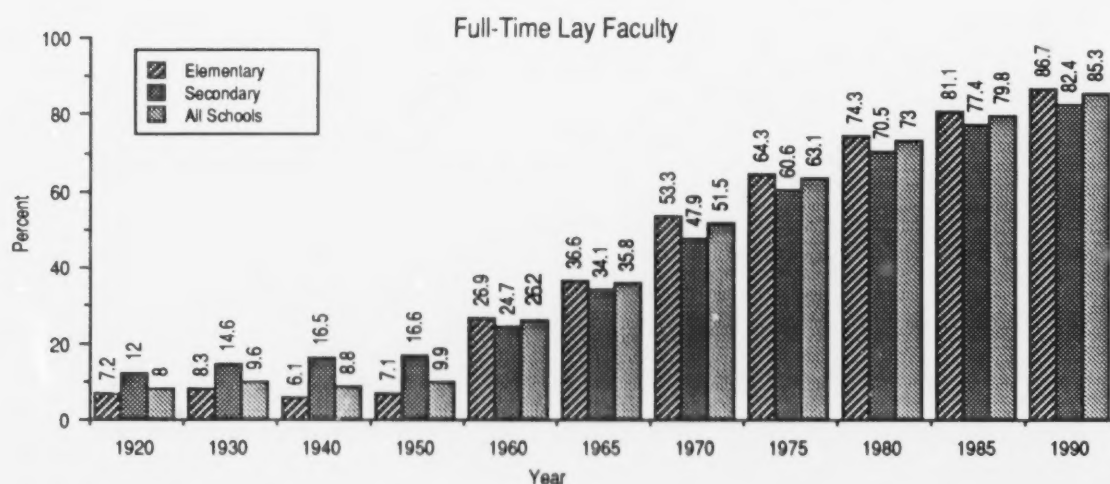
1. Some demographic characteristics of Catholic school teachers changed significantly between the early 1960's and 1990. Accompanying the decrease of 40,000 full-time teachers from 1965 to 1990 was a dramatic increase in the percentage of lay teachers. The ratio of female to male teachers in elementary schools remained very high, but declined substantially in secondary schools to virtual parity. During these 25 years, the professional level of Catholic school teachers increased with the attainment of a bachelor's degree by virtually all elementary school teachers and the possession of a graduate degree by a much higher proportion of elementary and secondary school teachers. Compared with public school teachers, Catholic school teachers had higher rates of turnover, were generally less experienced, and received much lower salaries.
2. The research shows that Catholic elementary and secondary schools have a critical mass of teachers who place primary emphasis on goals that are special to the mission of Catholic schools.

In addition, Catholic school teachers, more than public school teachers, perceive that the goals of their schools are clearer, and they are more in agreement among themselves concerning the goals and policies of their schools than are public school teachers.

3. Studies also show that Catholic school teachers, on average, exhibit high commitment, which is associated with a high level of collegiality and a strong sense of community. This combination of factors provides support for teachers and is likely to make them more effective by increasing their professionalism, satisfaction, and sense of efficacy, thereby contributing to students' achievement.

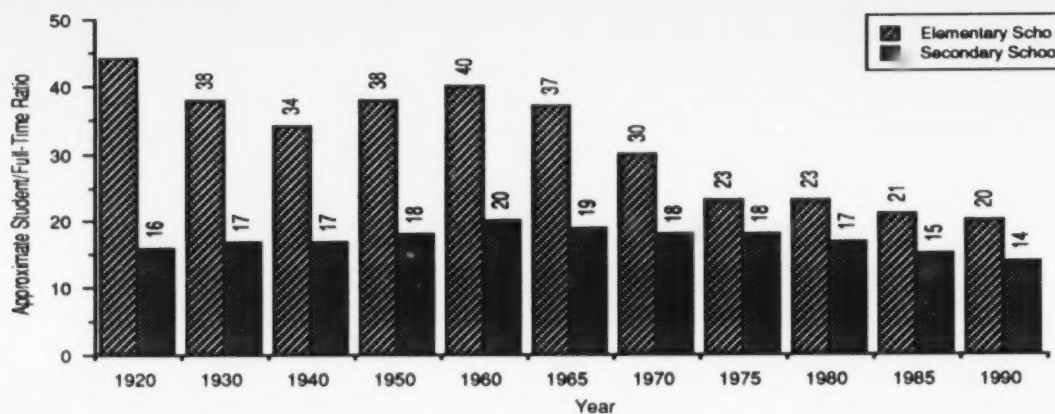
4. High collegiality among teachers in Catholic schools, which studies demonstrate is higher than that among teachers in public schools, is yet another indication of the community structure of Catholic schools. *High School and Beyond* and surveys conducted by the National Center for Education Statistics revealed that Catholic school teachers are more likely than public school teachers to express greater satisfaction with their working conditions and to attest to their school's family nature and the cooperative spirit among the faculty. The satisfaction of Catholic school teachers remains high, despite salaries that are substantially below those of public school teachers. Catholic school teachers also are more positive than are public school teachers concerning their principals' support and encouragement, their agreement with their principals concerning school policy, and the recognition they receive. In general, Catholic schools more than public schools contribute to teachers' sense of efficacy by delegating discretion to teachers and adequately involving them in policy decisions.

Table 6-1: Full-Time Faculty in Catholic Schools for Selected Years from 1920 to 1990



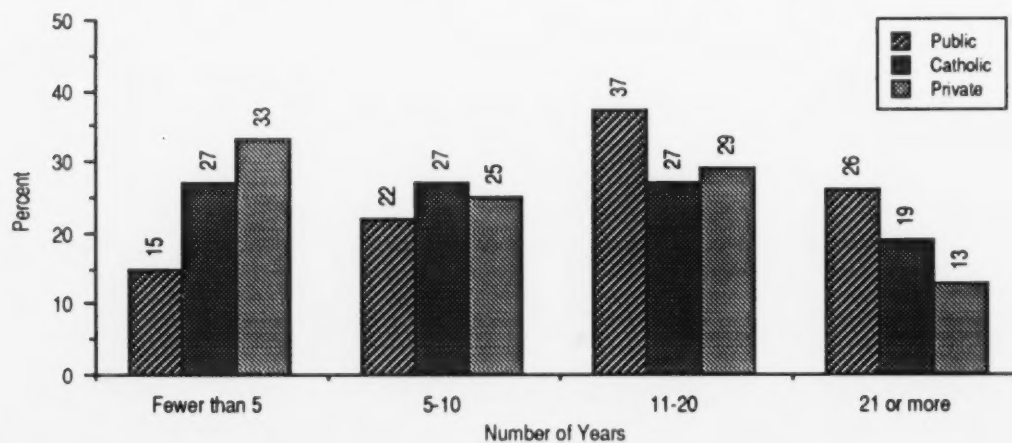
Source: Brigham (1989, 1990).

Table 6-2: Approximate Student/Full-Time Teacher Ratio for Selected Years from 1920 to 1990



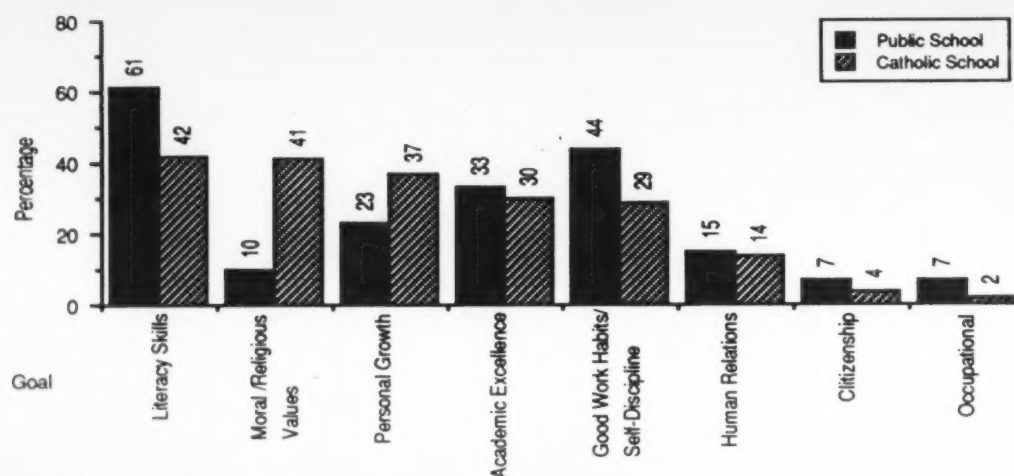
Source: Brigham (1989, 1990).

Table 6-3: Teaching Experience of High School Teachers in High School and Beyond



Source: Carroll (1985).

Table 6-4: Percentage of High School Teachers Ranking Goals First or Second, 1983-1986



Source: McMillen (1988).

Table 6-5: Rankings of Personal Teaching Goals of Teachers in Low-Income-Serving Catholic High Schools

Rank	Religious	Catholic Lay	Non-Catholic
1	Spiritual Development	High Moral Standards/ Citizenship	Critical Thinking
2	High Moral Standards/ Citizenship	Critical Thinking	High Moral Standards/ Citizenship
3	Understand, Participate In & Accept Church	Responsibility	Prepare for College
4	Build Community	Life Skills	Life Skills
5	Critical Thinking	How to Get Along	How to Get Along

Source: Benson et al. (1986).

Table 6-6: Percentage of Catholic Elementary School Lay Teachers in Boston, Corpus Christi, and Washington Ranking Instructional Goals as First in Importance

Goal	Boston (n=486)	Corpus Christi (n=139)	Washington (n=530)
Religious	36%	54%	49%
Moral/Religious Values	26%	28%	24%
Spiritual Development	4%	17%	16%
Learning Catholic Doctrine	6%	9%	9%
Academic	27%	19%	21%
Academic Excellence/Basic Skills	20%	17%	17%
Critical Thinking Skills	7%	2%	4%
Personal-Development	40%	26%	26%
Personal Growth	35%	23%	22%
Work Habits/Self-Discipline	5%	3%	4%
Societal	5%	6%	5%
Human Relations/Cultural Understanding	4%	4%	4%
Citizenship	1%	2%	1%

Note: The percentages add to more than 100 percent due to rounding and, in some cases, ties.

Sources: Ciriello (1988), Convey (1989b), Tarr (1990a, 1990b), and unpublished data from surveys of teachers in the Archdiocese of Boston (1990), Diocese of Corpus Christi (1988), and the Archdiocese of Washington (1986).

Table 6-7: Percentage of High School Teachers Agreeing with Statements Concerning their Colleagues, 1983 - 1986

Statement	Public	Catholic
Colleagues share beliefs and values regarding school mission	72%	80%
Cooperative effort among staff	67%	85%
Staff maintains high standards of performance	79%	91%
School seems like big family—cordial and close	41%	78%
Staff does not have much school spirit	47%	24%

Source: McMillen (1988).

Table 6-8: Reasons for Teaching that Catholic Elementary School Teachers in Selected Dioceses Listed as Most Important and Among the Three Most Important

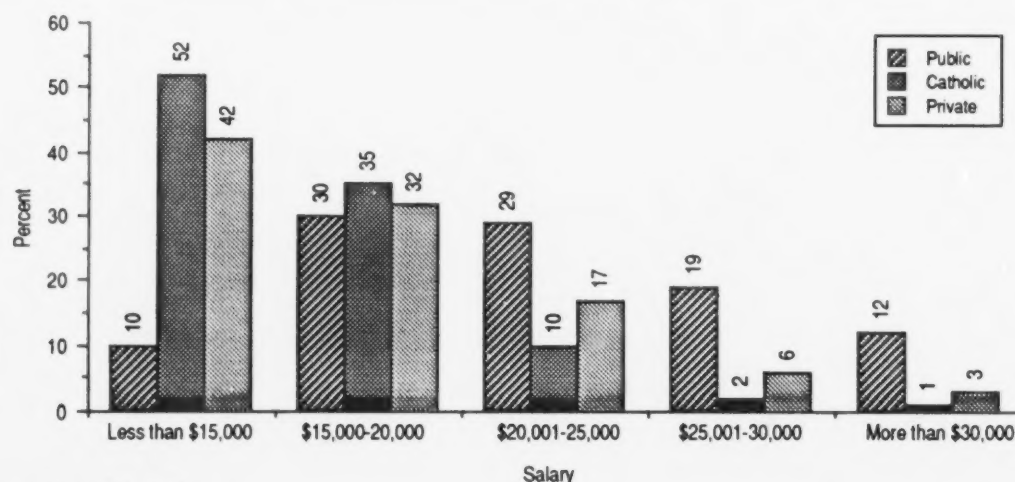
Most Important Reason for Teaching in This School		
Boston (n=658)	Corpus Christi (n=152)	Washington (n=806)
22%-Love Teaching	15%-Love Teaching	16%-Love Teaching
21%-Commitment Cath Ed	14%-Commitment Cath Ed	16%-Commitment Cath Ed
8%-Work with Young	10%-God's Choice	9%-Environment
6%-Environment	8%-Work with Young	8%-Work with Young
6%-Ministry	8%-Environment	7%-God's Choice

Among the Three Most Important Reasons

Reason	Boston	Corpus Christi	Washington
Love Teaching	49%	40%	42%
Work with Young	34%	34%	32%
Commitment Cath Ed	33%	26%	29%
Environment	29%	21%	27%
Ministry	19%	16%	23%
Witness to Faith	7%	19%	11%

Sources: Ciriello (1988), Convey (1989b), Tarr (1990a, 1990b), and unpublished data from surveys of teachers in the Archdiocese of Boston (1990), Diocese of Corpus Christi (1988), and the Archdiocese of Washington (1986).

Table 6-9: Distribution of Salaries of Teachers in *High School and Beyond*



Source: Carroll (1985).

PARENTS

Parents are the first and primary educators of their children. In official documents, the church consistently has promoted this fundamental parental right and has assigned to parents the primary responsibility for the catechetical formation of their children (Congregation for Catholic Education, 1988; National Conference of Catholic Bishops, 1973). The Code of Canon Law¹ states: "Parents above others are obliged to form their children in the faith and practices of the Christian life by word and example." And, in his apostolic exhortation on the family² in 1981, Pope John Paul II writes: "Parents must be acknowledged as the first and foremost educators of their children. Their role as educators is so decisive that scarcely anything can compensate for their failure in it."

Parents exercise their responsibility as educators when they select a school to assist in their child's education and cooperate with the school's efforts by (1) monitoring their child's progress and (2) to the extent that they are able, becoming involved in the life of that school. The church urges³ parents "to entrust their children to Catholic schools, where and when this is possible, to support such schools to the extent of their ability, and to work along with them for the welfare of their children."

This chapter presents the research that describes the reasons some Catholic parents select Catholic schools for their children and other Catholic parents do not, and the extent to which parents who send their children to Catholic schools are actively involved in the education of their children.

PARENTAL CHOICE OF CATHOLIC SCHOOLS

Some Catholic parents choose to send their children to Catholic schools, while others find Catholic schools unavailable, unattractive, or unaffordable. What motivates some parents to select Catholic schools for their children and other parents to choose not to send their children to Catholic schools?

Presumably, every parent desires the best educational placement for his or her child. The quality and scope of the school's academic program, the quality of the teachers, the school's reputation for discipline, where the school is located, and how convenient it is for the child to get to the school undoubtedly are among the factors considered by most parents, regardless of which schools they ultimately choose for their children.

Parents who think about a Catholic school for their children must consider other factors and decide whether the potential benefits resulting from these factors are worth the cost of tuition. These factors include the school's: (1) Catholic tradition; (2) religious instruction; (3) emphasis on values; (4) holistic program that integrates religious education into a total curriculum; (5) caring environment; (6) committed teachers who serve as Christian role models; (7) support by the functional community; and (8) discipline. For other Catholic parents, the choice of a Catholic school for their children is not feasible because the nearest Catholic school is either too far away

or has no openings, or the parents simply cannot afford to pay the tuition. Still other Catholic parents find particular public schools attractive because they have good academic reputations, offer special programs which are not available in Catholic schools, have diverse student bodies, or enroll their children's friends. In some cases, Catholic parents perceive that their local public school is superior to their local Catholic school because the public school has better facilities, smaller classes, and higher-paid teachers. Some other Catholic parents prefer to teach religion at home and/or to send their children to the parish religious education program, and thus do not see the benefit of paying for a Catholic school. Some Catholic parents may not be pleased with their local Catholic school because it does not have a good academic reputation. Finally, because of their own negative experiences in Catholic schools, some parents may be unwilling to send their children to a Catholic school.

What are the most important factors for those parents who do decide to send their children to Catholic schools and for those who decide not to send their children to Catholic schools? Have these factors changed over the past 25 years and, if so, in what way? Is there any relationship between these factors and the education and income of the parents?

Background

Considerable interest in the issue of parental choice of schools characterized the 1980's. At least three factors contributed to this interest. First, national studies (Bryk et al., 1984; Coleman et al., 1982; Coleman & Hoffer, 1987; Greeley, 1982) concluded that Catholic schools were more effective in achieving many of the desired goals of schooling, particularly for minority and low-income students, than were public schools. The publicity and subsequent controversy surrounding these findings served to focus public interest on schooling alternatives to public schools. Second, at the same time, public schools experienced a crisis of confidence (Gallup & Elam, 1988), in part as a result of such reports as *A Nation At Risk* (National Commission on Excellence in Education, 1983), which were critical of the schools. Third, the Republican administration of Ronald Reagan promoted a national education agenda that emphasized the so-called three C's: curriculum, character, and choice. The Reagan Administration's position on parental choice and its occasional public support for vouchers and tuition tax credits raised the nation's consciousness about the issues and sparked much debate (James & Levin, 1983; Wise & Darling-Hammond, 1983).

The growing dissatisfaction with public schools led many parents to enroll their children in private schools. The fast-growing Evangelical Christian schools were the choice of many parents (Cooper, 1988). Catholic schools, which were not operating at capacity because of two decades of enrollment declines (Donovan & Madaus, 1985), also benefitted from the crisis in confidence in the public schools as more non-Catholic children enrolled, especially in large urban areas. Even some public schools benefitted from the dissatisfaction, when several states developed parental choice plans for their public schools.⁴

Consequently, a substantial amount of research concerning parental choice emerged during the 1980's. This research portrayed parents as consumers of education who sought the best educational placements for their children, and who had specific reasons for choosing particular schools (Erickson, 1984; Gratiot, 1980a; Madaus, 1990; Murnane, 1986; Slaughter & Schneider, 1986; Williams, Hancher, & Hunter, 1983). The studies also showed that, among both private and public school parents, some were actively involved in the selection of schools for their children, while others were more passive and sent their children to neighborhood schools without seriously considering other alternatives (Darling-Hammond & Kirby, 1988; Oakley, 1986; Williams et al.,

1983). This research on parental choice, combined with research on how individuals make decisions in light of uncertainty (Kahneman & Tversky, 1979), provides a context for understanding how parents make choices about schools.

Decision Theory

Research from the field of psychology and decision theory concerning how individuals use heuristics in making decisions may help one to understand the strategies parents use in deciding whether or not to send their children to Catholic schools. Kahneman and Tversky (1972, 1973, 1979) concluded from their extensive research regarding decision-making that people often use heuristics in judging the likelihood of an event, especially when they are faced with uncertainty, change, or the possibility of a loss resulting from an incorrect or inappropriate decision. Heuristics result in intuitive rather than evidence-based decision-making. In general, heuristics are highly economical and usually effective; however, sometimes they lead to severe and systematic bias (Tversky & Kahneman, 1974). Two common heuristics are representativeness and availability.

The representativeness heuristic is the best studied and probably the more important of the two common heuristics. Kahneman and Tversky (1972) hypothesized that, in many situations, one event is judged more probable than another whenever the former event appears more representative than the latter. As an illustration, consider the situation of a parent selecting a school for his or her child. The event is uncertain when the parent is not sure which school is best for the child. How the parent represents each school often strongly influences what decision the parent eventually makes. For example, a parent might assess the likelihood of the child receiving a good education in a particular Catholic school by the degree to which that school is representative of, or similar to, the parent's understanding of a good school. If the parent represents the Catholic school as providing a good academic education with a value-centered environment, then the likelihood increases that the parent will decide to send his or her child to the school. Very possibly, parents who themselves attended Catholic schools and had good experiences would use the representative heuristic to associate a Catholic school with a good education. Indeed, research (Darling-Hammond & Kirby, 1988; Gratiot, 1980a, 1980b; Greeley & Rossi, 1966; Kamin & Erickson, 1981; Williams et al., 1983) has shown that parents with children in private schools, especially Catholic schools, are very likely to have attended similar schools when they were young. On the other hand, parents who attended Catholic schools and did not have good experiences or who decry the loss of religious teachers in the schools, could use the representative heuristic to decide not to send their children to Catholic schools.

The availability heuristic uses strength of association as a basis for judging the likelihood of an event (Tversky & Kahneman, 1973). In the availability heuristic, one assumes that if an association is easily made, then it must be accurate, since associative bonds are built with experience (Taylor, 1982). For example, a parent likely uses the availability heuristic when he or she readily associates Catholic schools with a particular characteristic, such as good discipline or moral environment. This same parent might then use the representativeness heuristic to conclude that Catholic schools are good schools, since a moral environment and good discipline, for that parent, are characteristics which make a school a good school. Another parent might use the availability heuristic to associate Catholic schools with large classes and underpaid teachers. This parent might then conclude, using the representativeness heuristic, that these schools are not satisfactory options for the child because the parent assumes that underpaid teachers likely are not as competent as higher-paid teachers and small classes are better for learning than are large classes.

An important component identified by Kahneman and Tversky (1979) in the process of making choice is the framing phase. The framing phase is controlled partly by the formulation of the problem and partly by the norms, habits, and personal characteristics of the decision-maker. A change in how the question is posed and how the choices are stated can affect the desirability of options. For example, a parent who frames the question concerning what school to choose solely in terms of the desired academic success of his or her child, may make a different choice than a parent who frames the question in terms of the child's total education: academic, spiritual, and social. Clearly, the value system, experiences, and expectations of individual parents influence the way they frame the decision situation and the decision which they ultimately make.

Parents as Consumers

The paradigm of the parent as a consumer, searching for the best educational placement for a child, also is useful for understanding parental choice. Although Murnane (1986) ruled out the competitive market analogy when examining parental choice within public education, the analogy is helpful when examining parental choice within nonpublic education. First, explicit price differences do play a role in sorting students among schools. Catholic schools compete for students with public schools, other nonpublic schools, and sometimes other Catholic schools. Furthermore, the financial circumstances of a family often determine whether or not the child attends a private school and which particular school is selected. Finances were not always a consideration for parents in choosing to send their children to Catholic schools. The tuition charged by Catholic schools prior to the mid-1970's was relatively low; indeed, some parish elementary schools did not charge any tuition at all. Today, virtually all Catholic schools charge tuition. Furthermore, tuition increased rapidly in the 1980's (Kealey, 1990), in most places much faster than the rate of inflation (Williams, 1986).

Second, two mechanisms that stimulate entrepreneurial activity in competitive markets are desire for personal profit and fear of job loss (Murnane, 1986). How might these mechanisms relate to the situation where a parent is trying to decide whether or not to send a child to a Catholic school? In choosing a school, desire for the child's academic advancement may be analogous to the desire for personal profit, and concern that the child will lose out on either a good religious education or a competitive edge, which the parent believes the Catholic school provides, may be analogous to the fear of job loss. The parent's choice of the child's school usually results from the parent's attempt to maximize the potential benefits for the child and to minimize the potential loss by not enrolling the child in a different school.

Finally, incentives are an important part of competitive markets. Some possible incentives for parents to choose Catholic schools include: (1) academic advancement, if parents perceive that available public schools are not adequate or simply that Catholic schools are better; (2) religious education in a value-promoting setting, since public schools don't provide that; (3) discipline, if parents perceive that the discipline in Catholic schools is better or that public schools lack discipline; and (4) a caring environment, if parents value the community nature of Catholic schools or think that available public schools are too impersonal. Thus, the choice of a school often depends upon what alternatives the parents have, what the parents value in terms of educational placements for their children, and what the parents can and are willing to pay for these alternative educational placements.

Parents as Choosers

Williams, Hancher, and Hutner (1983) developed a framework of choice that classified parents as "active" or "latent," depending on whether they did or did not consider other alternatives to the schools which their children attended at the time. Active choosers considered at least two schools for their children prior to making a final choice. Latent choosers only considered one school, the school that their children attended. Williams and her colleagues divided the parents of children in public schools into these two groups, but they assumed that parents of children in private schools were active choosers. Further research showed, however, that the latter assumption was not always correct. Darling-Hammond and Kirby (1988), in their study of 476 Minnesota households with school-age children, argued that some private school parents were non-choosers or latent choosers because they really never considered any alternative other than the private schools that their children attended. Surprisingly, Darling-Hammond and Kirby found that public school parents were more likely to be "active" choosers than were private school parents. One reason for this finding was that Minnesota permitted the choice of different public schools for their residents.

Darling-Hammond and Kirby further extended the paradigm of parents as choosers by arguing that parents who actively considered alternatives did so because of what these authors called "push" factors and "pull" factors. "Push" factors caused parents to seek other options to their local public school or their local parochial school because of some perceived deficiency in the local school, such as poor teachers, problems with discipline, or an orientation at variance with the parents' values. "Pull" factors attracted parents to particular schools because of what they perceived those schools could offer to their children, such as a quality academic program, religious education, good facilities, or sports programs.

In their national study of parental choice, Williams and her colleagues (Williams et al., 1983) found that many parents of public school children considered the reputation of local schools in deciding where to purchase a home. Once these parents decided on where to live, they did not consider any schools other than their local public school. "Active" public school parents, on the other hand, more closely resembled private school parents in the factors that they cited as being the most important in choosing a school, with academic factors mentioned most often. However, the factor that usually determined the final choice of school for "active" public school parents was cost. They selected the public school over a private school because they couldn't afford the tuition for a private school. The determining factor for "active" private school parents, however, often was the values promoted by the school or the school's program of religious education (Williams et al., 1983).

In general, the affluence of parents was related to their likelihood to be active choosers. In their study of Minnesota parents, Darling-Hammond and Kirby (1988) found that private school parents with lower incomes and lower levels of education were less likely to be active choosers than were private school parents with higher incomes and higher levels of education. In like manner, Oakley (1986) determined that over 80 percent of parents of kindergarten and 1st grade children in an affluent suburb of Cleveland were active choosers. Such findings are not surprising because more affluent parents have the financial resources that enable them to explore a wide range of schools.

Darling-Hammond and Kirby also found that Catholics were less likely to be active choosers than were other private school parents. That is, Catholic parents with children in Catholic schools

tended not to consider other alternatives to these schools. Presumably, most of these parents were attracted by pull factors particular to Catholic schools, such as good academic programs, a value-centered curriculum, religious education, and good discipline.

Reasons for Choosing Catholic Schools

Most research concerning why parents send their children to nonpublic schools has involved Catholic schools. The three factors that consistently emerged as being important for parents in choosing Catholic schools were religious instruction and environment, discipline, and quality of the school's academic program. Which of these factors was considered most important by parents?

Most studies published prior to 1980 found that the majority of parents reported religious reasons as most important in determining their choice of Catholic schools. In most studies published since 1980, however, the quality of the school's academic program was of primary importance to the majority of parents. Part of the apparent shift in the priorities of parents, however, may be a function of the questions asked, the population sampled, and how the data were collected and analyzed.

Studies Before 1980

Early studies (Donovan & Madaus, 1969; Fichter, 1958; Greeley & Rossi, 1966; Greeley et al., 1976; Kraushaar, 1972; Neuwien, 1966) found that Catholics who were asked to consider the importance and advantages of Catholic schools emphasized the religious and moral dimensions of the schools. These studies were conducted at a time when many Catholic parents did not consider alternatives to Catholic schools; generally, Catholic children went to Catholic schools. Because Catholic schools had a pastoral rather than an academic mandate (McCluskey, 1964), Catholic parents, and Catholics in general, not unexpectedly, emphasized aspects of Catholic schools that provided these schools their unique identity.

Closer examination of these studies, however, revealed that they often: (1) sampled Catholics in general, rather than only Catholic parents of school-age children; (2) did not ask respondents to identify the most important reason for sending children to Catholic schools, but rather asked a related question; and (3) analyzed and interpreted the data in different ways.

Fichter's (1958) study of a parish school provides a good illustration of the motivations of parents prior to 1960. The Catholic school parents interviewed by Fichter overwhelmingly indicated that religious motivations influenced their choice of the parish school. Fifty-nine percent of the parents wanted a Catholic education for their children and an additional 22 percent sent their children to the school simply because it was the parish school. Other parents cited the obligation to educate their children as Catholics (8 percent), the teaching ability of the religious sisters in the school (5 percent), and the school's discipline (2 percent) as reasons for sending their children to the parish school.

Catholic Schools in Action (Neuwien, 1966) provided further documentation of the importance that parents placed on the religious dimension of Catholic schools. However, the parents really never were asked why they sent their children to Catholic schools. Instead, they rated the importance of 31 statements as goals of Catholic education, indicated how successful Catholic schools were in achieving these goals, and ranked the three most important of these statements. Five of the 10 statements rated highest in importance, including the three highest-rated state-

ments, had religious/moral themes, whereas only two of the 10 highest-rated statements were strictly academic in nature. The ranking task produced a similar emphasis on religious/moral goals. A strong congruence existed between what parents rated as important and what they saw Catholic schools most successful in achieving; that is, the religious/moral and academic goals that they identified among the top 10 most important goals.

In *The Education of Catholic Americans*, Greeley and Rossi (1966, p. 206, 214) asked their respondents, not all of whom were parents, about the perceived advantages of sending a child to a Catholic school. The vast majority of the adults from both their regular sample (73 percent) and their "Commonweal" sample (93 percent) indicated that religious instruction was an advantage of Catholic schools. The other advantages of Catholic schools, given by the adults in the regular sample, were better discipline (38 percent) and better education (31 percent). Six percent of the regular sample and 7 percent of the "Commonweal" sample thought that Catholic schools had no advantage over other schools.⁵

Donovan and Madaus (1969) found that more Catholic school parents from the Archdiocese of Boston reported religious reasons than academic reasons for selecting Catholic schools. Approximately 70 percent of the parents with children in Catholic schools selected religious training, the presence of religious teachers, or the religious environment of the school as a reason for enrolling their children. Just under half the parents gave an academic reason and about a fourth gave discipline as a reason. Younger parents were more likely than older parents to give an academic reason and were just as likely as older parents to give a religious reason for sending their children to Catholic schools. Once again, however, parents were asked for all of their reasons for selecting a Catholic school, not just for their most important reason.

Kraushaar (1972) presented parents of high school students with a list of potential reasons for selecting a Catholic school and reported the percent of parents who endorsed each reason as important or very important. As occurred in the studies by Donovan and Madaus (1969), Greeley and Rossi (1966), and Neuwien (1966), the importance of religious education and values received more endorsements than did the importance of academics and preparation for college. Kraushaar (1972, p. 105) reported that about 72 percent of the parents rated religious education, 60 percent rated discipline, and 58 percent rated values as an important or very important reason for selecting the Catholic school. While 62 percent rated better training in diligence and study habits as an important or very important reason for choosing the school, less than half the parents rated better teachers (49 percent), smaller classes (49 percent), and more academically challenging curriculum (44 percent) as an important or very important reason.

In the second of the NORC studies, Greeley, McCready, and McCourt (1976) found that most Catholics continued to see religious instruction as the specific advantage of Catholic schools. Fifty-two percent of the Catholics surveyed saw religious instruction as an advantage of Catholic schools. The other reported advantages of Catholic schools were better discipline (37 percent), better education (22 percent), moral education (10 percent), and more personal attention to the child (8 percent) (Greeley et al., 1976, p. 238). Unlike the previous studies, however, Greeley and his associates asked parents of Catholic school children to indicate their most important reason for selecting the school. Over a third (34 percent) of the parents of Catholic school children reported that their main reason for choosing Catholic schools was a better education, while 19 percent indicated that religious instruction and 18 percent indicated that better discipline were their main reasons (Greeley et al., 1976, p. 227). Twenty-nine percent of the parents gave other reasons, only two of which were given by Greeley: "all the child's friends attend the school" and

"the parents just never thought of anything else" (p. 228). Greeley and his associates also found that older Catholics, those with less education, and those from smaller towns selected Catholic schools primarily because of the school's religious instruction and religious environment. Younger and better-educated parents in the study selected Catholic schools primarily for academic reasons and, in some cases, a more disciplined environment.

Finally, in a study for the Archdiocese of Cleveland, Johnson (1978) asked parents of school-age children to designate, in the order of their importance, the five most important factors they considered in deciding whether or not to send their children to a Catholic school. The group of parents with children in Catholic schools ranked the quality of the school's educational program (average rank = 1.83) higher in importance than the school's religious orientation (average rank = 2.43). Parents with children in Catholic high schools ranked the school's religious orientation slightly lower in importance than did parents with children in Catholic elementary schools. However, both the school's academic quality and its religious orientation were clearly very important to the parents, since only the importance ranking for discipline (average rank = 2.85) was close to these two factors.

In summary, these studies showed that Catholics, in general, and Catholic parents of school-age children, in particular, in responding to questions concerning the most important goals, advantages, or distinctive attributes of Catholic schools, identified religious factors more often than academic factors. However, in responding to questions concerning the one most important factor for choosing a Catholic school, more Catholic parents with children in Catholic schools identified an academic factor rather than a religious factor as important for them.

Studies Since 1980

The studies published in the 1980's focused more on parents of school children and specifically asked for reasons why parents selected Catholic schools. As the costs of attending Catholic schools continued to rise, most Catholic parents no longer automatically enrolled their children in Catholic schools, but viewed Catholic school attendance as a choice to be made among alternatives. The reasons for making that choice still included religious considerations, but academic quality and discipline were very important for virtually all parents and the most important considerations for many parents.

A few studies conducted in the 1980's found that religious factors were of primary importance to the majority of Catholic parents in selecting a Catholic school. Some studies that supported the primacy of religious reasons were, once again, surveys of the general Catholic population in specific dioceses, not exclusively of parents with children in Catholic schools (Moran, 1983; Schaefer, 1984). An important exception, though, was *The Notre Dame Study of Catholic Parish Life* (Gremillion & Castelli, 1987), which found that religious instruction and the teaching of values were the most important reasons that parents sent their children to the parish school. The reasons that were least commonly cited as most important were academic quality, discipline, and concern about the welfare of the students (Gremillion & Castelli, 1987, p. 167). In his studies in British Columbia, Erickson (Erickson, 1982; Erickson & Kamin, 1980; Erickson & Nault, 1980) also found that religious factors were most important for parents, discipline was a close second choice, and the quality of the academic program was third. Charron (1981), Welch (1988), and a 1988 survey of Catholic school parents in Cleveland (Tactical Decisions Group, 1989) provided additional support for the importance of religious factors in selecting Catholic schools. The Cleveland study concluded that Catholic school parents felt that the academic program was

important, but they were willing to have less than the "best" academic education in order to get religious training for their children.

In the majority of the studies published in the 1980's, the academic quality of the school was most often the most important reason given by parents for selecting a Catholic school. Academic quality was important for parents in selecting both Catholic elementary schools (Bleggi, 1986; Convey, 1986a) and Catholic secondary schools (Bauch, 1989; Bryk et al., 1984; Checchia, 1990; Costabile, 1986; Gothard, 1983; Nelson, 1989). The primary importance of academic reasons was established in national studies (Bryk et al., 1984; Williams et al., 1983) and in local studies in various parts of the country (Convey, 1986a, 1990; Fact Finders, Inc., 1988;⁶ Gratiot, 1980a, 1980b; Meitler, 1989).

The study by Williams and her colleagues (1983) was particularly notable because the 129 parents in the study who had children in Catholic schools were part of a national probability sample of parents. More Catholic school parents selected an academic reason (45.4 percent picked academic standards/courses) as most important in choosing the child's school than selected values or religion (29.9 percent), discipline (11.8 percent), or teachers (5.4 percent). On the other hand, parents with children in other religiously-affiliated private schools were almost twice as likely to choose values and religion (42.9 percent) as most important as they were to choose academics (22 percent).

As part of a long-range planning study for the Archdiocese of Washington, Convey (1986a) surveyed over 11,000 parents of pre-high-school-age children. Almost half (48.8 percent) of the 8000 Catholic parents with children in a Catholic school, or who indicated that they intended to send their children to a Catholic school, selected the school's academic program as the most important factor influencing their choice of the school. The most important factor for almost 30 percent of the Catholic parents was a religious factor: religious education, discussion of social/moral issues, and presence of priests and religious. Other Catholic parents selected discipline (11.3 percent), alternative to public school (4 percent), and other factors (6 percent), including the location of the school and the fact that friends attended the school, as the most important factor.

As part of a long-range planning study for the Archdiocese of Boston, Convey (1990) surveyed 684 parents of Catholic elementary school 4th graders and 327 parents of Catholic high school juniors. The most important factors in the choice of the school for the elementary school parents were discipline and safe environment (39 percent), academic program (33 percent), and religious education (30 percent). Thirty-eight percent of the high school parents selected the school's academic program as the most important factor, 28 percent selected the school's discipline and safe environment, and 25 percent selected religious education.

The research clearly shows, however, that most parents who send their children to Catholic schools want more than a quality academic program (Bauch, 1989; Checchia, 1990; Convey, 1986a; Gratiot, 1980a, 1980b; Morrison & Hodgkins, 1978; Welch, 1988; Williams et al., 1983). In addition to religious instruction, discipline, and a caring environment, many parents seek the reinforcement of the values that they stress at home (Bleggi, 1986; Cibulka et al., 1982; Cusick, 1985; Dee, 1982; Gothard, 1983; Kraushaar, 1972). The resulting value congruency between home and school likely contributes to making the schools more responsive to the child's needs and the expectations of the parents. Moreover, children fare best in schools where the rule structures parallel those of the home (Hansen, 1986).

Several studies examined the factors associated with transferring from one type of school to another. Parental dissatisfaction with public schools was one of the most important reasons for switching from public to private schools (Dee, 1982; Frechtling, Edwards & Richardson, 1980; Gratiot, 1980a; Williams et al., 1983). Dissatisfaction with academics was cited most frequently, but dissatisfaction with discipline and teachers also was indicated (Erickson, 1984; Williams et al., 1983). However, some parents who switched primarily for religious reasons or values, usually after kindergarten or 8th grade, were not necessarily dissatisfied with the public schools (Frechtling et al., 1980; Frechtling & Frankel, 1982). Similarly, the transfer of a child from a private school to a public school often resulted from financial or logistical reasons, rather than from dissatisfaction with the private school (Williams et al., 1983).

Reasons for Not Selecting Catholic Schools

Catholic parents who decide not to send their children to Catholic schools usually give as their primary reason either finances, academics, location, or unavailability of Catholic schools. In the studies conducted prior to 1975, most parents identified academics or lack of available schools, rather than finances, as the most important reason for not sending their children to Catholic schools. Not unexpectedly, only a minority of parents cited lack of finances as the most important reason, because Catholic schools had relatively low tuition at the time of these studies. The location of Catholic schools, however, was an increasing problem for many Catholic parents as they moved in great numbers to the suburbs, which often had no Catholic schools. Furthermore, some Catholic parents, especially better-educated parents, lost confidence in Catholic schools and gave an academic reason for not sending their children to them.

The national studies conducted by Greeley and his associates (Greeley & Rossi, 1966; Greeley et al., 1976) clearly showed that the primary reason given by most parents for not sending their children to Catholic schools was the lack of conveniently-located schools. Approximately half of the respondents in these studies listed unavailability of Catholic schools or the distance to the nearest Catholic school as the most important reason for children not attending a Catholic school. Lack of conveniently-located schools also was the most important reason given by over 40 percent of the parents in the Archdiocese of Boston who did not send their children to Catholic schools in the late 1960's (Donovan & Madaus, 1969); however, more parents (54 percent of elementary school parents and 42 percent of secondary school parents) gave an academic reason for not sending their children to a Catholic school. In these studies, only a relatively small number of parents, between 14 percent (Donovan & Madaus, 1969) and 24 percent (Greeley et al., 1976), gave finances as the most important reason for not sending their children to Catholic schools.

In studies conducted after 1976, finances became an increasingly important reason for many parents and, in some studies, the primary reason for most parents in deciding not to send their children to Catholic schools. Academics and location of schools, however, continued to be primary reasons for many parents. *The Notre Dame Study of Parish Life* (Gremillion & Castelli, 1987) reported that parishioners who did not send their children to the parish school gave finances as one of the main reasons. In Convey's (1986a) study of parents of school-age children in the Archdiocese of Washington, almost 42 percent of the 1685 parents who did not have children in Catholic schools selected finances, approximately 25 percent selected an academic reason (academic program, school facilities, or class size) and almost 9 percent selected school location as the primary reason for not sending their children to Catholic schools. A survey of parents in the Archdiocese of Boston revealed that 28 percent of 250 parents with children in parish CCD programs selected a financial reason and 41 percent selected an academic reason as their primary

deterrent to choosing a Catholic school for their children (Convey, 1990). In addition, Catholic parents surveyed in Baltimore (Meitler, 1989), Cleveland (Tactical Decisions Group, 1989), and St. Louis (Fact Finders, 1988), cited finances as a major factor for not sending their children to Catholic schools. Many parents in these studies also identified concern about academics (academic program, facilities, teachers, class size), and distance and location of the school as an important or the most important reason for not sending their children to Catholic schools.

Social Class and Parental Choice

Do parents of different socioeconomic levels have different reasons for choosing Catholic schools? The majority of studies that examine this question found a direct relationship between parents' socioeconomic status and selection of academic reasons for choosing Catholic schools. As their family incomes and educational levels increased, parents were more likely to place primary emphasis on academic reasons and less emphasis on other reasons (Bauch, 1989; Bryk et al., 1984; Convey, 1986a; Greeley et al., 1976). In Bauch's (1989) study, 52 percent of parents selected academics as the most important reason for their choice of the school; however, parents with incomes over \$20,000 were more likely to select academics than were parents with incomes under \$20,000. In Convey's (1986a) study, 50 percent of white Catholic parents and 67 percent of black Catholic parents with incomes over \$40,000 indicated that the school's academic program was the most important factor for them. As the income of the parents in Convey's study decreased, the percentage citing the school's academic program systematically decreased to about 38 percent for those parents whose income was under \$10,000.

For the most part, parents who identified an academic reason for not sending their children to Catholic schools did not consider finances as a major influence in their decision. Researchers have found that parents with high incomes (Bryk et al., 1984; Convey, 1986a) and with college educations (Greeley et al., 1976) tended to cite the quality of the academic program as the most important reason for selecting a Catholic school.

The relationship between the socioeconomic status of parents and their choice of religious reasons for choosing Catholic schools, however, is not as clear. In some studies, parents with smaller family incomes and lower levels of education were more likely to place primary emphasis on religious reasons than were parents with higher incomes and higher levels of education (Convey, 1986a; Greeley et al., 1976; Schneider & Slaughter, 1988). Schneider and Slaughter (1988) found that lower-income parents were more likely than higher-income parents to indicate that the development of the child's moral and social character was the primary focus of education. Convey (1986a) found a particularly strong inverse relationship between family income and the likelihood of selecting a religious reason for black Catholics, but a relatively weak inverse relationship for white Catholics. As the family income of black Catholics decreased, the likelihood increased that these parents selected a religious reason as primary motivation for sending their children to Catholic schools. Black Catholic parents at the lowest income level of under \$10,000 (36 percent) were twice as likely as black Catholic parents at the highest income level of over \$40,000 (18 percent) to select a religious reason. The differences in the likelihood of white Catholic parents of different income levels selecting a religious factor as most important were more modest than those for the black Catholic parents; however, the differences followed a similar pattern as that for black parents. White Catholic parents at the lowest income level (38 percent) were just slightly more likely than white Catholic parents at the highest income level (32 percent) to select a religious factor. In addition, the data from Bauch's (1989) study also showed a slight inverse relationship between parental income and the choice of a religious reason. The relationship was distorted somewhat by the parents with the lowest incomes, who were much more likely than other parents

to select discipline as their most important reason. When discipline and religious reasons are combined, the inverse relationship between these and parental income in Bauch's study is more apparent.

In two studies, however, parents with higher socioeconomic levels selected religious reasons as primary motivations, while parents with lower socioeconomic levels selected academic reasons. Fay (1975) found that the more affluent parents in his study gave religious reasons for selecting Catholic schools, whereas lower-class and working-class Catholics gave reasons which related to their children's upward mobility and which stressed academics and discipline. Erickson (1982) found that the low-income parents in his study selected the academic quality of the school more frequently as their reason for choosing the school than did parents with higher incomes. Perhaps, the lower-income parents in both of these studies selected Catholic schools because of a "push" factor, that is, the poor academic programs available in the public or government schools. On the other hand, the higher-income parents may have been attracted to Catholic schools because of a "pull" factor, that is, the religious nature of the schools.

The reasons given by parents who did not choose Catholic schools for their children often were related to their socioeconomic status (Convey, 1986a; Gratiot, 1980b; Greeley & Rossi, 1966; Greeley et al., 1976, Williams et al., 1983). Many parents, particularly those with lower family incomes and lower levels of education, gave lack of financial resources as the primary reason, or at least a very important reason, for not sending their children to Catholic schools. As their incomes and levels of education increased, however, parents were increasingly likely to place primary emphasis on academic reasons or on the unavailability of schools, rather than on other reasons in deciding not to send their children to Catholic schools. Often these parents lived in areas that had excellent public schools, which the parents perceived to be at least as academically good as or better than the nearest Catholic school. For some of these parents, however, the nearest Catholic school was just too far away.

Academic factors and discipline were instrumental in attracting large numbers of low-income, non-Catholic minority students to Catholic schools (Bauch, 1989; Cibulka et al., 1982; Donovan & Madaus, 1985; Vitullo-Martin & Vitullo-Martin, 1973). While parents, who in the past would have sent their children to public schools, now had more access to Catholic schools, research shows that only a small percentage were simply fleeing the public schools (Slaughter & Schneider, 1985), and that low-income parents were less likely to display anti-public school bias than were high-income parents (Cibulka et al., 1982; Gratiot, 1980a).

Summary

The major findings of the research on parental choice include:

1. Some parents actively consider more than one school for their children prior to making a final selection of a school, while other parents are more passive and do not actively examine alternative placements for their children.
2. Catholics, in general, and Catholic parents with school-age children, in particular, consider the religious nature of Catholic schools as their most distinctive characteristic and their most important advantage.
3. Some parents send their children to Catholic schools primarily because of the religious nature

of the schools. In the research conducted prior to 1975, most parents selected the religious nature of the Catholic school as the primary reason for choosing the school; however, studies since 1975 indicated that only 20 percent to 30 percent of parents with children in Catholic schools selected a religious reason as the primary reason for sending their children to the schools.

4. For some parents, and the majority of parents in many studies, academic reasons are more important than religious reasons for selecting Catholic schools. However, a quality academic program is not a sufficient reason for most parents to select Catholic schools. Parents also value religious education, discipline, and the reinforcement of values that are promoted in the home.

5. For many parents, discipline is as important a factor in selecting Catholic schools as religion or academics; however, in no study was discipline selected as the primary reason for selecting Catholic schools.

6. Some parents, especially minority parents and those from lower socioeconomic classes, view the quality education that Catholic schools offer as a way to ensure the upward mobility of their children.

7. Some parents, often minority parents, select Catholic schools because of their desire to place their children in a loving and caring environment

8. In some studies, the primary reason given by most Catholic parents who did not send their children to Catholic schools was lack of sufficient finances; however, in other studies, the primary reason was either lack of available schools or a perception that Catholic schools did not offer quality academic programs or, at least, that the public schools offered better programs.

9. In some studies, the primary reasons for selecting Catholic schools were related to the social class of the parents; however, the relationship was not consistent across studies and some studies found no relationship between social class and parental reasons.

10. Studies that included other church-related schools, as well as Catholic schools, found that parents from the other church-related schools selected religious reasons and value consistency between the home and the school more often than Catholic school parents as important or primary reasons for selecting the schools attended by their children.

11. Most students who transfer from public schools to Catholic schools or other church-related schools do so for academic, rather than religious reasons. Religious reasons are important for only a small number of parents and mainly for those who withdraw their children from a public school kindergarten to begin 1st grade in a church-related school.

12. Most parents who transfer students from private schools to public schools give cost and convenience as the major reasons for leaving the private school more frequently than dissatisfaction with the school's academic program.

PARENTAL INVOLVEMENT

Most educators would agree that the involvement of parents in their child's education is an important factor in the child's success in school. Although the evidence is mixed, research

generally has shown that parental involvement in education has a positive effect on the child's attitudes and increases his or her performance and success in school (Anderson, 1982; Epstein, 1983, 1987; Hannaway & Abramowitz, 1985; Murnane, 1986; Purkey & Smith, 1983; Walberg, 1984). Further, parental involvement seems to be an essential component of an effective school (Anderson, 1985).

Parental involvement in education assumes at least two forms. One form is the direct interaction of the parent with the child. Activities associated with this form include keeping track of the child's progress by assisting with or monitoring the child's homework, making sure that the child spends sufficient time studying at home, talking with the child about school and personal problems, encouraging the child to excel, knowing the child's whereabouts, and knowing his or her friends. These are precisely the types of activities that result in the production of social capital between the parent and the child (see Chapter 5).

A second form of involvement is the participation of the parent in school activities. Here the parent has the opportunity to interact directly with the educational environment of the child. This interaction serves to increase the parent's understanding of that environment and the parent's commitment to the school. More importantly, this involvement of the parent with the school is a sign to the child of the parent's interest. Parental involvement in this sense includes attending parent-teacher conferences and school functions, talking with teachers at school activities, serving on school organizations, working on school projects, assisting the school in fund raising, and volunteering for activities that directly support the school's instructional program, such as teacher aides, room mothers, and enrichment.

Why is parental involvement effective in influencing attitudes and behaviors? The primary hypothesis is that parental involvement results in higher levels of social capital (Coleman & Hoffer, 1987). Children who relate well with their parents and who view them as interested in their progress generally have higher self-concepts than children who do not perceive their parents in this manner (Martin, 1975; Rohner, 1975). Parental interest in the child also may increase the child's motivation to achieve (Purkey & Smith, 1983) and the child's acceptance of his or her parent, which has been associated with improved intellectual and moral development (Clark-Stewart, 1973). In addition, Hannaway and Abramowitz (1985, p. 42) speculated that interested parents may motivate teachers, while apathetic parents may contribute to teacher apathy. Furthermore, they argued that parental interest and appreciation are among the few sources of external rewards for teachers. If this view is correct, then the culture of the school acts in a complementary manner with parental values, in one sense being influenced by parent values and in another sense, helping to galvanize the commitment of the parents.

Parental Involvement with Their Children

Research generally has found that a high percentage of parents of Catholic school children are personally involved with aspects of their children's education, in most cases higher than the percentage of public school parents. The data from *High School and Beyond* showed extensive personal involvement of Catholic school parents with their children. Using the longitudinal data from 1980 to 1982, Rock et al. (1986) reported that a higher percentage of Catholic high school students than public high school students received parental monitoring of their school progress and their out-of-school activities^a (see Table 7-1). Furthermore, while fewer of the students as seniors reported being monitored by their parents than when they were sophomores, the percentage of Catholic high school students who were monitored by their mothers did not decline

significantly from the sophomore to senior years. Rock et al. found that such parental interest in the student's school behavior was an important predictor of the student's performance on the vocabulary and mathematics tests. Rock's finding complemented a previous finding reported by Walberg and Shanahan (1983) that the amount of discussion between parents and children concerning education was significantly related to mathematics and reading achievement. In like manner, Bryk and his associates (Bryk et al., 1984) found that the personal involvement of parents of Catholic school students, measured by monitoring work, speaking about personal matters, and knowing the whereabouts of their children, was a strong predictor of the students' sense of personal control, self-esteem, community orientation, and family orientation.

Convey (1982) and Greeley (1982) also used the data from *High School and Beyond* to examine parental monitoring of all the sophomores in the 1980 base year. Convey found that Catholic students in Catholic high schools had higher perceptions of their parents' interest in their education than did Catholic students in public high schools. Greeley (see Table 7-2) found that parental monitoring was more extensive for black and Hispanic students in Catholic schools than for those in public schools; however, more white students in Catholic schools than in public schools reported monitoring of homework by fathers, whereas more white students in public schools than in Catholic schools reported monitoring of homework by mothers.

Catholic Schools in Action also provided some information about parental interest in the school attended by the child and the willingness of the parents to cooperate with the plans and programs of the school. Neuwien (1966) reported that 72 percent of the elementary school students and 52 percent of the high school students rated parental interest as "strong" or "extremely strong." In addition, the high school students were more than twice as inclined to attribute weak or below average interest to parents than were the elementary school students (Neuwien, 1966, p. 244). Parental interest also was related to the academic success of the students, with more successful students reporting higher parental interest than less successful students.

Other research also has shown high personal involvement of Catholic school parents with the education of their children. Morton (1979) found that, in Rhode Island, a higher percentage of Catholic school 8th graders than public school 8th graders discussed school with their parents, and a higher percentage of Catholic school 4th graders than public school 4th graders had parental assistance with school work. Approximately two-thirds of the Catholic school children in the 1985-86 *National Assessment of Educational Progress* reported daily home interest in their schoolwork, about the same as public school 3rd and 7th graders, but significantly higher than the public school 11th graders (Marks & Lee, 1989). More than 80 percent of the parents surveyed by Bauch (1988a, 1988b, 1989) with family incomes over \$10,000 and 73 percent of the parents with incomes less than \$10,000 reported monitoring the homework of their children. Bauch's data are particularly significant since they were provided by parents and not self-reports of students, as was the case in the other studies cited.

Parental Involvement with the School

The second form of parental involvement involves the direct contact of the parent with the school. Although the evidence from the research indicates that, on average, parental involvement with the school was considerably lower than the involvement of parents with their children, Catholic school parents were more involved with their schools than were parents of public school students. In addition, the degree of parental involvement with the school was related to student outcomes.

Parental involvement is greater in private schools, in general, and in Catholic schools, in

particular, than in public schools (Chubb & Moe, 1988; Coleman & Hoffer, 1987; Hannaway & Abramowitz, 1985). Many believe that the increased parental involvement in private schools flows from the ownership and commitment that parents feel for schools to which they have entrusted their children and in which they have invested their tuition money (Chubb & Moe, 1990; Fichter, 1958; Kraushaar, 1972).

Most Catholic schools offer a variety of opportunities for parents to become directly involved with the school; however, in many schools, often only a minority of parents actually do become involved. Each school has its own particular culture for the participation of parents; some cultures are very facilitating, others are less so (Bauch, 1988a; Schneider, 1989). In *The Catholic High School: A National Portrait*, Yeager and his colleagues (1985) found that over 90 percent of Catholic high schools used parents as volunteers, in many cases as fund raisers and chaperons; over 80 percent had parent organizations; over 60 percent used parents to assist with co-curricular activities; and slightly under 50 percent used parents as office assistants and for maintenance. However, the principals of the Catholic high schools reported that fewer than a third of the parents were active in parent organizations. In addition, despite opportunities for involvement, as Rock et al. (1986) noted, the average student in *High School and Beyond* reported that even though parents kept close track of his or her progress, parental involvement with the school was low. Similarly, Bauch (1988a) remarked that most parents from the five inner-city high schools that she studied did not become involved directly with the school, many because they simply were unable to because of their particular circumstances. Instead, most parents in her study were involved in activities that directly related to their children's education, such as monitoring homework.

Evidence from *High School and Beyond* indicated that parents of Catholic high school students were more likely to attend parent-teacher conferences and PTA meetings, and to do volunteer work, such as fund raising or assisting with school projects, than parents of public school children (see Table 7-3). Furthermore, Catholic school principals were less likely to view parental lack of interest as a problem and reported fewer hostile confrontations with parents than did public school principals (Coleman & Hoffer, 1978, p. 54). Research by Bryk and his associates (1984) showed that parental involvement with the school, in terms of attending PTA meetings and parent-teacher conferences and participating in school projects, had substantial effects on student academic attitudes, community orientation, and number of leadership positions held.

Direct parental involvement in the life of the school is likely to be even greater for Catholic elementary schools than for Catholic high schools. The functional community of the elementary school is a normal outgrowth of the parish community and often of the neighborhood. Moreover, parents often view the parish school as their school, and they feel that they have the opportunity to have a more direct impact on their children's education by becoming involved with the school. Fichter (1958), in the most detailed description of parental involvement in a Catholic elementary school, marveled at the amount of time and energy that parents devoted to the maintenance and improvement of the school. He stressed the importance of volunteers to the success and smooth running of the parish school. He saw the school as being dependent upon the goodwill and cooperation of the parents.

Although more indirect than Fichter's data, other evidence for the involvement of parents in the life of elementary schools comes from the Catholic League Study of inner-city schools. These schools exhibited a high degree of what Cibulka et al. (1982) called "structural responsiveness," which occurred both formally through local school councils and informally through an open climate that encouraged parental suggestions. The vast majority of parents in these schools

believed that the school welcomed their suggestions (82 percent) and requested their involvement (95 percent). Cibulka and his associates also found that parents who were most positive in their assessment of the school also were most likely to perceive that the school required their involvement. Cibulka saw the parental engagement with the school as creating a loyal group of parents who were willing to make extraordinary sacrifices on behalf of the school.

Cibulka's finding that parents in inner-city schools recognized the importance of involvement in the school is not unusual, since Catholic inner-city schools have been particularly effective in obtaining the personal involvement of parents (Bauch, 1988a, 1988b; Vitullo-Martin, 1979). Perhaps this is a major reason why Catholic inner-city schools have been so effective. Involvement in school activities is generally acknowledged as particularly important for low-income and minority families because they are likely to feel excluded from school life otherwise (Lightfoot, 1978). Indeed, the functional community encompassing the school is a major reason why an increase in parental involvement would result in better student outcomes. The functional community encourages and facilitates the involvement of parents with the school, and this parental involvement, in turn, serves to strengthen the functional community by helping the school form strong ties with parents.

Correlates of Parental Involvement

Research on the relationship between the characteristics of parents and the extent of involvement in their children's education has received little attention, and the few findings that do exist are conflicting. Coleman and Hoffer (1987) argued on the basis of their analyses that, unlike the situation in other private schools, the higher rates of parental participation found in Catholic schools were not explained by the more advantaged backgrounds of Catholic school students and their parents. However, Bauch (1988a, 1989) found that parents' level of education, their reason for choosing the school, and their income were related to their involvement in the school. Parents who were more likely to be involved with the school were better educated, with higher incomes, and selected the school primarily for academic reasons. *Catholic Schools in Action* also found a perception of higher parental interest by students from higher social class families, and by students whose parents, especially their mothers, were educated in Catholic schools (Neuwien, 1966).

Parental Aspirations for Their Children

A parent's aspirations for the future education of a child are other indications of parental involvement. The data from *High School and Beyond* revealed that Catholic high school students perceived that their parents had high aspirations for their further education, much higher than the parental aspirations perceived by students from public high schools (Coleman et al., 1982; Coleman & Hoffer, 1987; Greeley, 1982; Rock et al., 1986). Furthermore, Coleman and his colleagues (1982) argued that parental aspirations, especially those of the mother, were strong predictors of enrolling a child in a Catholic school (Coleman et al., 1982).

The Catholic high school seniors in *High School and Beyond* also reported that their parents, particularly their mothers, had more influence on their post-secondary plans than did their friends, relatives, teachers or guidance counselors (Rock et al., 1986). Furthermore, the strength of the perceived parental influence on post-secondary plans was higher for Catholic school students than it was for public school students.

In addition, the analyses of the data from *High School and Beyond* indicated that these parental aspirations were important predictors of student outcomes (Greeley, 1982; Rock et al., 1986). For example, the mother's educational aspirations for her child had a direct impact on the child's educational outcomes (Greeley, 1982), in particular on gains from the sophomore to the senior year in vocabulary, mathematics, and writing, even when controlled for other family background and individual student variables (Rock et al., 1986).

SUMMARY

1. The research on parental choice clearly indicates that Catholics, in general, and Catholic parents of school-age children, in particular, view the religious nature of Catholic schools as their most distinctive quality and their most important advantage. However, the research also supports the primacy of academic and financial considerations when parents decide whether or not to send their children to Catholic schools. While religious considerations are important for virtually all Catholic parents, only for some parents is a religious factor the most important reason for selecting a Catholic school. In the studies conducted in the past 15 years, Catholic parents most often identified an academic reason as their primary reason, while about 20 percent to 30 percent of parents selected a religious reason.
2. Those parents who select a religious factor as most important also rate academic factors and discipline very high in importance. In addition, a quality academic program is not a sufficient reason for most parents to send their children to Catholic schools. Parents also value the schools' Catholic tradition, religious education, and discipline, as well as the reinforcement of the values that are promoted in the home.
3. Family income has an impact on the reason for selecting a Catholic school. In most studies, the primary reason given most often by Catholic parents who did not send their children to Catholic schools was lack of sufficient finances; however, in other studies, the primary reason was either the lack of available schools or a perception that Catholic schools did not offer quality academic programs or, at least, that the public schools offered better programs.
4. Choosing not to send their children to Catholic schools often is a matter of finances for Catholic parents of all income groups, and especially so for Catholic parents with lower incomes. As family income increases, however, an increasingly higher percentage of parents select an academic reason as both the most important factor in choosing Catholic schools and the most important factor in deciding not to send their children to Catholic schools. Furthermore, most studies found that the primary motivation which influenced the decision about Catholic schools was either financial or academic, but rarely a combination of both financial and academic factors.
5. Parents of Catholic school students have higher expectations for their children and monitor their children's work and out-of-school activities more than do parents of public school children. Furthermore, parents of Catholic school students are more supportive of and involved in the school than parents of public school students. The higher expectations and support of Catholic school parents for their children and their greater involvement in their children's schools are manifestations of the functional communities that are present in Catholic schools.

Table 7-1: Parental Monitoring of Students in *High School and Beyond* Who Stayed in School from 1980 to 1982

	Catholic School		Public School	
	10th	12th	10th	12th
Mother keeps close track of school progress	94%	92%	91%	87%
Father keeps close track of school progress	86%	82%	80%	76%
Parents know where I am and what I'm doing	86%	83%	85%	79%

Source: Rock et al. (1986, pp. 48, 49, 243).

Table 7-2: Parental Supervision by Race/Ethnicity in Catholic High Schools (CHS) and Public High Schools (PHS)

	White		Black		Hispanic	
	CHS	PHS	CHS	PHS	CHS	PHS
Father monitors homework	78%	71%	59%	54%	74%	64%
Mother monitors homework	89%	95%	93%	88%	89%	85%
Parents know where I am and what I'm doing	79%	79%	78%	73%	86%	81%

Source: Greeley (1982, p. 22).

Table 7-3: Parental Involvement in Catholic High Schools (CHS) and Public High Schools (PHS)

	CHS	PHS
Percent of Students Who Report Their Parents . . .		
Attended parent-teacher conferences	56%	39%
Attended PTA meetings	35%	20%
Visited classes	25%	21%
Phoned or saw teacher	43%	47%
Did volunteer work in the school	46%	27%
Administrators Who Report . . .		
Parents lack interest in student progress	7%	53%
Parents lack interest in school matters	18%	55%
Verbal confrontations between parents and teachers	8%	22%
Verbal confrontations between parents and principals	6%	32%

Source: Coleman & Hoffer (1987, pp. 53, 54).

STUDENTS

An important finding from *High School and Beyond*, as well as other studies, is that the achievement differences between Catholic schools and public schools are greatest for disadvantaged students: those from families with lower levels of parental education or family incomes, and those who are members of a racial or ethnic minority. Furthermore, Catholic schools are more successful than are public schools in reducing the within-school differences between the academic achievement of minority students and other students. In short, the research shows that Catholic schools are particularly effective for disadvantaged students. In addition, an emerging body of research has begun to document the relative effectiveness of single-sex Catholic high schools, especially for girls. This chapter contains a review of the research in these two important areas.

DISADVANTAGED STUDENTS AND CATHOLIC SCHOOLS

Academic Achievement

Much like they did for the immigrant poor from Europe during the second half of the 19th century and the first third of the 20th century (Sanders, 1977), Catholic schools continue to minister to and be effective for the disadvantaged. For example, research shows that minority students in Catholic schools score higher on achievement tests than do minority students from public schools. Table 8-1 shows the results of Greeley's analysis of the achievement test results from the base year of *High School and Beyond*. Black students in Catholic schools scored at least a half standard deviation unit higher than their public school counterparts in vocabulary, writing, civics, and reading, and between .3 and .4 standard deviation units higher in mathematics and science. In addition, the differences between Hispanic students in Catholic schools and those in public schools were similar to the differences for black students.

Studies also show that the differences in test performance between white and minority students are smaller in Catholic schools than in public schools (Coleman et al., 1982; Greeley, 1982). Although minority students scored lower than non-Hispanic white students in both Catholic schools and public schools, the differences between minority students and white students were much smaller in Catholic schools than in public schools (see Table 8-1). Based on the academic performance index, which Greeley (1982) formed by adding the scores from two mathematics' tests and a reading test, the difference between white students and Hispanic students was about 37 percent less in Catholic schools than in public schools, while the corresponding difference for black students was about 23 percent less. This last finding contributed to the "common school controversy," referred to in Chapters 2 and 4.

The analysis of the longitudinal data from *High School and Beyond* continued to reveal a strong Catholic school advantage for minority students. Table 8-2 shows the higher gains in verbal and mathematics from the 10th grade to the 12th grade for the Catholic school students, as compared with the public school students. The differences between Catholic schools and public schools in

both achievement areas were greater for black and Hispanic students than for white students. The average gains for blacks in Catholic schools over and above the average gains for blacks in public schools were about .9 items in mathematics and about 1.6 items in verbal. The average gains for Hispanic students in Catholic schools were even greater than those for blacks: 1.7 items more in mathematics and 1.9 items more in verbal than their public school counterparts. The advantages that Catholic school black and Hispanic students enjoyed, in comparison with their respective public school counterparts, were one and a half to three times greater in mathematics and two to two and a half times greater in verbal than the advantages enjoyed by white students in Catholic schools over their respective public school counterparts. Coleman and Hoffer (1987) controlled for sophomore achievement, family background, and selected student characteristics in producing the results reported in Table 8-2. These results were consistent with the cross-sectional findings of Coleman et al. (1982) and Greeley (1982), and were further confirmed by Bryk and Raudenbush (1989) and by Lee and Bryk (1989) in multilevel analyses of longitudinal data.

The National Assessment of Educational Progress revealed a similar pattern of superior performance of minority students in Catholic schools, compared with those in public schools. Analyses by Lee and her associates (Lee & Stewart, 1989; Marks & Lee, 1989) showed that students' racial/ethnic backgrounds were less strongly associated with test performance for Catholic school students than for public school students. The differences between the mathematics, science, and reading test performances of minority students, especially Hispanics, and white students generally were smaller in Catholic schools than in public schools (see Table 8-3). Furthermore, the score differences, particularly in mathematics and science, between minority students and non-Hispanic white students in Catholic schools diminished as grade level increased, but generally did not do so in public schools. A caution is in order concerning these findings because of the cross-sectional nature of the NAEP data; however, these results are very similar to those from analyses of the longitudinal data from *High School and Beyond* (Bryk & Raudenbush, 1989; Coleman & Hoffer, 1987).

For both the *High School and Beyond* and NAEP data, the achievement advantage of Catholic schools over public schools generally was greatest for students whose parents had the lowest levels of education and the lowest incomes (Coleman et al., 1982; Greeley, 1982; Lee & Bryk, 1988, 1989; Lee & Stewart, 1989; Marks & Lee, 1989). Greeley (1982), for example, not only reported much lower correlations for Catholic high schools than for public high schools between the academic performance of students and their parents' income and education (see Table 8-4), but he also found that in Catholic schools, academic performance was virtually uncorrelated with these parent characteristics. Further analyses suggested that Catholic schools were most successful for students whose parents did not attend college and for students who came from lower socioeconomic backgrounds (Bryk & Raudenbush, 1989; Coleman et al., 1982; Coleman & Hoffer, 1987; Greeley, 1982; Lee & Stewart, 1989; Marks & Lee, 1989). Vitullo-Martin (1979) noted the same effects occurred in Catholic elementary schools.

The Catholic school effects may in fact interact with the social class of the students. Studies (Bryk & Raudenbush, 1989; Lee & Bryk, 1989) have found that the average difference in mathematics achievement between Catholic schools and public schools decreased as the affluence of the school increased. In fact, in more affluent schools, mathematics achievement was slightly higher for public schools than for Catholic schools. The largest difference in the mathematics achievement between Catholic and public schools occurred for lower social class schools (Lee & Bryk, 1989). Greeley (1982) also noted that the differences in academic achievement between Catholic and public schools was much greater for students enrolled in non-academic tracks than for those in

academic or college-preparatory tracks. The superiority of Catholic schools for students enrolled in non-academic tracks occurred for both minority students and white students; however, the differences were greater for the minority students than for the white students.

Educational Aspirations

Minority students in Catholic schools generally have higher postsecondary educational aspirations than do minority students in public schools. Research shows that the high educational aspirations of Catholic school students are fairly uniform across different racial/ethnic groups. In *High School and Beyond*, for example, 64 percent of the white students, 77 percent of the black students, and 66 percent of the Hispanic students in Catholic schools expected to graduate from college. These percentages were from one and a half to one and seven-tenths times greater than the corresponding percentages of their counterparts in public schools (Greeley, 1982, p. 24). In low-income-serving Catholic high schools, 74 percent of the white students, 82 percent of the black students, and 77 percent of the Hispanic students indicated that they thought they had an excellent or good chance of graduating from college (Benson et al., 1986, p. 90). In addition, the educational aspirations among students from families of different educational backgrounds were more alike in Catholic schools than in public schools (Coleman et al., 1982).

The results from the NCEA study on low-income-serving Catholic high schools graphically demonstrated the strength of the educational aspirations of minority students. The minority students in these Catholic schools had higher expectations regarding the earning of an advanced degree than did the white students. Forty-two percent of the black students and 39 percent of the Hispanic students, compared with 29 percent of the white students, indicated they expected to earn at least a master's degree (Benson et al., 1986).

Minority students who graduate from Catholic high schools appear to have more success in college than do minority graduates of public high schools. Of the minority students in *High School and Beyond* who graduated from high school in 1980 and who went on to college, those from Catholic high schools were more likely than were those from public high schools to complete college. By 1986, a fourth of the Hispanic (25 percent) and black (25.1 percent) Catholic school graduates who attended college had attained at least a bachelor's degree, compared with less than one-tenth of the Hispanic (8.6 percent) and black (8.7 percent) public school graduates who attended college (Benson & McMillen, 1991, p. 110).

Dropouts

Minority students in Catholic schools are less likely to drop out of school than are minority students in public schools. The findings from *High School and Beyond* demonstrated that Catholic schools had substantially lower dropout rates and higher holding power than did public schools for students typically at a higher risk of dropping out: students from single-parent families, minority students, or students from low-income families. Further, the difference in the likelihood of dropping out for students who were at risk and those who were not at risk was much lower in Catholic schools than in public schools, or even in other private schools (Coleman & Hoffer, 1987). For example, Bryk and Thum (1989) found not only that dropout rates are lower in Catholic schools than in public schools, but also that social class is virtually unrelated to dropping out within Catholic schools, and the effects on dropping out of an at-risk factor is only half as large as in public schools.

Table 8-5 shows the estimates from *High School and Beyond* of the dropout percentages in public, Catholic, and private schools. While the dropout rates for white, black, and Hispanic students differed very little in public and other private schools, the corresponding rates in Catholic schools were considerably less. In Catholic schools, the dropout rate for blacks (4.6 percent) was almost twice that of whites (2.6 percent) and the rate for Hispanics (9.3 percent) was almost four times that of whites. On the other hand, blacks in Catholic schools were about one-fourth as likely and Hispanics about one-half as likely to drop out as their public school counterparts. Additional data provided by Coleman and Hoffer (1987) revealed that the dropout rate in Catholic schools was highest among students from the lowest socioeconomic quartile (14.9 percent), which still was considerably less than the rate for similar students (22.3 percent) in public schools.

School Climate

Catholic schools that enroll a high percentage of minority students are similar to other Catholic schools in their emphasis on aspects of school climate that research has found are associated with effective schools. These aspects are the school's academic emphasis, discipline and order, sense of community, and instructional quality.

Academic Emphasis

Catholic schools place more rigorous academic demands on minority students than do public schools. The greater academic demands of Catholic schools flow from their clarity of mission and strong leadership (Cibulka et al., 1982; Coleman & Hoffer, 1987; Grant, 1985, 1988; Greeley, 1982). This academic emphasis results in a higher probability of placement into an academic program, more challenging coursework, and more homework. Coleman and Hoffer (1987) concluded that the greater effectiveness of Catholic schools for black and Hispanic students is explained in large part by the expectations that Catholic schools hold for these students and the challenging academic placements that Catholic schools provide for them (see also Lee & Bryk, 1988).

Minority students in Catholic high schools are more likely to enroll in an academic curriculum than are minority students in public high schools. The data from *High School and Beyond* revealed that minority students in Catholic schools were two times more likely than their counterparts in public schools to be in an academic curriculum (Coleman & Hoffer, 1987; Greeley, 1982). In addition, minority students (64 percent) in Catholic schools were as likely as white students (65 percent) to be in an academic track; however, in public schools, minority students (29 percent) were less likely than white students (34 percent) to be in an academic track (Greeley, 1982).

The NCEA study on low-income-serving Catholic high schools (Benson et al., 1986) produced the most comprehensive data concerning the course placements of minority students. Three important findings that were related to the academic placements of minority students resulted from this study. First, family income influenced the likelihood that a white or Hispanic student would be in an academic curriculum; however, the likelihood of black students enrolling in an academic track was not related to their socioeconomic status. White and Hispanic students with higher family incomes were more likely than those with lower family incomes to be in an academic track, but black students at all income levels were equally likely to be in an academic track. Second, at all income levels, Hispanic students were as likely as white students to be in an academic curriculum. Third, for families classified as very poor, black students (69 percent) were significantly more likely than were Hispanic (59 percent) or white (56 percent) students to be

enrolled in an academic curriculum; however, for families classified as non-poor, Hispanic (80 percent) and white (81 percent) students were significantly more likely than were black (71 percent) students to be in an academic curriculum.

Minority students in Catholic high schools generally take more courses in English, foreign languages, science and advanced mathematics than do their public school counterparts (Coleman & Hoffer, 1987). In addition, minority students in Catholic schools are more likely to report that they have participated in laboratory work or in field projects, and have written term papers, essays, or poems (Greeley, 1982).

Finally, minority students in Catholic schools report spending more hours per week on homework than do minority students from public schools (Coleman & Hoffer, 1987). Forty-four percent of black and Hispanic Catholic school students reported spending more than five hours per week on homework, compared with 22 percent of black and Hispanic students in public schools (Greeley, 1982).

Discipline and Order

A Catholic school's clarity of mission and effective discipline produce a safe and orderly environment that promotes academic development (Cibulka et al., 1982; Greeley, 1982). Researchers who have studied the effectiveness of Catholic schools for minority students attribute a considerable portion of this effectiveness to the discipline and order found in the schools (Cibulka et al., 1982; Coleman & Hoffer, 1987; Grant, 1988; Greeley, 1982).⁶ On average, minority students in Catholic schools perceive that their schools have better discipline and order than do minority students in public schools. Catholic school students reported fewer problems than did public school students with absenteeism, class cutting, and disruptive behavior (Coleman & Hoffer, 1987). In addition, minority students in Catholic schools felt that their schools' discipline was effective and fair; they knew that deviation from rules generally was not tolerated (Benson et al., 1986). Black students in Catholic schools were three times more likely than their public school counterparts to rate as excellent the effectiveness of their school's discipline, while Catholic school Hispanic students were over five times more likely than Hispanics in public schools to do so (Greeley, 1982).

Sense of Community

The functional community of the Catholic school, which also is a faith community, provides a caring and faith-filled environment that is supportive of all students (Benson et al., 1986; Coleman & Hoffer, 1987). The functional community is particularly effective for minority students, whose parents often choose Catholic schools not only for their academic reputations, but also for their caring and supportive environments.

Catholic schools are more successful than other schools at integrating educationally, economically, and personally disadvantaged students into the life of the school (Coleman et al., 1982; Light, 1966). Low-income students are more evenly distributed within Catholic schools than they are within public schools. A lower-income student in a Catholic school has a higher proportion of higher-income classmates than does his or her counterpart in public school (Coleman et al., 1982).

According to ratings by principals, teachers, and students, Catholic high schools with high concentrations of minority students are comparable to other Catholic high schools in their

emphasis on faith development and the establishment of a faith community (Benson et al., 1986; Yeager et al., 1985). Among low-income-serving Catholic high schools, which have a higher percentage of minority students than other Catholic high schools, student perceptions of school climate did not vary by family income. Minority students, however, in low-income-serving schools were slightly more likely to score higher than white students on measures of social compassion, responsible behavior, faith commitment, and church commitment (Benson et al., 1986). In addition, evidence from *High School and Beyond* (Greeley, 1982) revealed that minority students, as well as white students from the Catholic schools, were two times more likely than their counterparts from public schools to give excellent ratings to their teachers' interest, which is a good indication of the school's sense of community (see Table 8-6).

Instructional Effectiveness

Strong instructional leadership is a characteristic of many Catholic schools, including many of those that serve a significant number of minority students (Benson et al., 1986; Cibulka et al., 1982; Greeley, 1982). Catholic schools are characterized by highly-committed teachers who strongly support their school's mission (Benson & Guerra, 1985). As a result, Catholic schools have fewer staff problems and higher student-rated instructional quality than do public schools (Coleman et al., 1982; Greeley, 1982).

In addition to agreeing that the inner-city elementary schools attended by their children were the best schools in which to educate their children (98 percent), the parents in the Catholic League's study (Cibulka et al., 1982) overwhelmingly agreed that the schools gave their children a quality education (94 percent), helped their children be more successful in the future (98 percent), challenged their children to do their best (98 percent), and helped their children to read and write well (98 percent).

The Catholic high school students in *High School and Beyond* rated the quality of the instruction they received significantly higher than did public high school students. The mean ratings of instructional quality by Catholic school students exceeded the mean ratings from public school students by .61 standard deviation units for white students, .62 standard deviation units for black students, and .72 standard deviation units for Hispanic students (Greeley, 1982, p. 43). Within Catholic schools, Hispanic and white students were more satisfied than were black students with the quality of the instruction in their schools; however, the instructional quality ratings of black students in Catholic schools exceeded those of each of the public school racial/ethnic groups. Viewed in another way, white and black students in Catholic schools were two times more likely, and Hispanic students were three times more likely, to give excellent ratings to the quality of instruction in their schools than were their counterparts in public schools (see Table 8-6).

Parental Choice

Virtually all of the studies on choice of Catholic schools by minority parents have involved black families. Many black parents consider private schools better than public schools for ensuring their children's upward mobility. Catholic schools, which enroll about 90 percent of all black children in private schools, are more accessible and affordable to most black parents who choose private education than are other private schools. Even so, most black parents make considerable financial and personal sacrifices to enable their children to attend Catholic schools, often paying higher tuition because they are not Catholic or belong to a parish that is unable to subsidize the tuition as much as other parishes (Convey, 1986b; Vitullo-Martin, 1979).

Most research shows that black parents choose Catholic schools because they want their children in the best possible educational environment (Arnez & Jones-Wilson, 1988; Ascher, 1986; Cibulka et al. 1982; Slaughter & Schneider, 1986). Black parents find in Catholic schools an educational setting that closely complements their own beliefs and aspirations (Abramowitz & Stackhouse, 1980; Coleman et al., 1982). The majority of black parents in most studies gave an academic reason as primary in their selection of a Catholic school. These parents apparently believed that Catholic schools provide a quality education that stresses basic skills, which results in a better preparation for college and future employment than the neighborhood public schools can provide.

But, black families choose Catholic schools for more than just academic reasons. Some parents enroll their children in Catholic schools because they seek to provide for them a loving and caring environment (Arnez & Jones-Wilson, 1988), and to expose them to committed teachers (Cibulka et al., 1982), moral and religious values (Coleman & Hoffer, 1987), and discipline and order (Slaughter & Schneider, 1986). Some black parents view Catholic schools as providing networks and social skills needed for upward mobility in a predominantly white society (Ascher, 1986).

Many black parents do not view the public schools in their neighborhoods as capable of effectively helping their children. Lower-income black parents often perceive their children's upward mobility to be blocked in public schools; higher-income black parents refer to poor academic quality in public schools (Arnez & Jones-Wilson, 1988). Black parents are not opposed to public education per se; they simply have adopted a different strategy to ensure their children's future upward mobility (Slaughter & Schneider, 1986). In Darling-Hammond and Kirby's (1988) terminology, both "push" and "pull" factors exert an influence on black parents, but the "pull" factors of the Catholic school's reputation for quality, educational philosophy, strong sense of community, and responsiveness to the needs of the parents, students, and neighborhoods (Ascher, 1986; Cibulka et al., 1982) often seem to be more powerful than the dissatisfaction of black parents with public schools. For example, in his study in the Archdiocese of Washington of parents with children not yet in high school, Convey (1986a; 1986b) found that only 4 percent of black parents who enrolled their children in Catholic schools did so primarily as an alternative to public schools. Furthermore, non-Catholic white parents were more than twice as likely as black parents, both Catholic and non-Catholic, to choose Catholic schools primarily as alternatives to public schools (see Table 8-7).

Convey's (1986a) research also indicated that as their incomes increased, a higher percentage of parents selected Catholic schools primarily for academic reasons and a lower percentage selected the schools for religious reasons. The relationship between income and choice of academic or religious reasons, however, was much stronger among black Catholics than among white Catholics. Black Catholic parents were more likely than white Catholic parents to choose Catholic schools primarily for academic reasons and less likely than white Catholic parents to choose the schools for religious reasons.

Rand Study on Focus Schools

The findings from a study by the Rand Corporation (Hill, Foster, & Gendler, 1990) serve to illustrate and emphasize many of the factors that contribute to the effectiveness of Catholic schools for minority and low-income students. According to the study, Catholic inner-city high schools are more effective than comprehensive public inner-city high schools in helping disadvantaged students to succeed,

The Rand study, "High Schools with Character," included 13 inner-city high schools in New York City and Washington, D. C. The researchers did an in-depth analysis of eight schools, all in New York City: three Catholic schools, two comprehensive public schools, and three special-purpose public schools. Many of the Catholic school students had received scholarships from the New York City Student-Sponsored Partnership Program, which pays tuition for disadvantaged students in inner-city Catholic high schools. Most scholarship recipients were black or Puerto Rican and many were not Catholic. As the study noted, the recipients tended to come from single-parent welfare homes and have poor scholastic records.

The Rand researchers combined the Catholic and special-purpose public schools into a single category, which they called focus schools, because they shared three important elements. First, the schools had clear missions and distinct cultures; they were not simply chance aggregations of individuals who happened to be assigned to the same school. Second, each school had a special identity that inspired a sense of loyalty and common commitment from the staff, students, and parents. Third, the schools were committed to the development of the whole student; they worked on communicating values and developing attitudes, in addition to transmitting facts and imparting skills.

Students in the focus schools graduated at a much higher rate and scored better on the Scholastic Aptitude Test (SAT) than did students in the comprehensive schools. The Catholic schools had the highest graduation rate, with 95 percent of all students and 82 percent of Partnership students graduating, compared with 66 percent of the students from the special-purpose public schools and 55 percent of those from the comprehensive public schools. The SAT scores of students from the special-purpose public schools approached the national average for black students, while the Catholic school Partnership students exceeded it. Moreover, the Partnership students, many of whom entered below grade level, scored nearly as well as their classmates.

While family background and student characteristics might explain some differences between the focus schools and the comprehensive schools, the mission and organizational structure of focus schools were important contributors to their effectiveness with disadvantaged students. First, all focus schools had clear goals that produced high expectations concerning student performance, attitudes, and behaviors. Rather than assuming that students would automatically fit in, the schools aggressively socialized the students to their norms and expectations.

Second, as in other studies that found that Catholic high schools had a strong commitment to a core academic program for all students, regardless of the student's background and educational aspirations (Coleman et al., 1982; Coleman & Hoffer, 1987; Greeley, 1982), the focus schools in the Rand study placed all students into a traditional high school core curriculum as quickly as possible. In particular, the Catholic schools consistently challenged students, expecting those requiring remedial help to put in extra hours before and after school and to attend summer school, if necessary.

Third, the focus schools had strong organizational structures that enabled the staff to exercise initiative and to solve problems. Not burdened by a strong bureaucracy, the focus schools were inherently more flexible and adept at solving problems than were the comprehensive public schools. The authors noted that the Catholic schools had a high capacity for problem-solving because they were strong communal organizations and their tradition was well understood by the entire school community. Furthermore, parents knew what the schools offered and trusted them to operate effectively in their child's interest.

Summary

1. The research reveals that Catholic schools are particularly effective for minority students and students from low socioeconomic families. The achievement advantage of Catholic schools over public schools is greatest for children of parents with the least education. Minority students in Catholic schools score significantly higher on achievement tests than their counterparts in public schools, with the differences in test performance increasing in higher grades. Furthermore, the difference between the achievement of minority students and white students in Catholic schools decreases across grade levels, whereas the difference between minority and white students in public schools is larger than that in Catholic schools and remains fairly stable across grade levels.
2. Catholic schools place greater academic demands upon minority students than do public schools. Catholic schools have high expectations for all students, including minority, low-SES, and low-ability students. As a result, Catholic schools require more rigorous academic coursework and more homework of all students. Catholic school minority students are more likely than their counterparts in public schools to be in an academic program in high school, to graduate from high school, and to attend and successfully complete college. In addition, Catholic school students have lower absenteeism and fewer incidents of disruptive behavior than do public school minority students.
3. Minority parents choose Catholic schools for their children not only for academic reasons, but also because of the schools' caring environments and discipline. Minority parents also seek an environment that reinforces the values they stress at home. However, the incorporation into a peer group for which achievement is expected and rewarded is a major reason why many minority parents enroll their children in Catholic schools.

SINGLE-SEX AND COEDUCATIONAL CATHOLIC HIGH SCHOOLS

Demography

Less than half of the Catholic high schools in the United States are single-sex schools. Although the exact number of single-sex and coeducational Catholic schools is difficult to determine, approximately 40 percent of Catholic high schools during the 1980's were single-sex. Bryk et al. (1984) reported that over 40 percent of Catholic secondary schools were single-sex and 60 percent of these were all-female. The most comprehensive study of Catholic high schools, *The Catholic High School: A National Portrait*, reported that 44 percent of Catholic high schools were single-sex (Yeager et al., 1985). Other estimates of the percentage of single-sex schools ranged from 39 percent (Guerra & Donahue, 1990) to 42 percent (Coleman et al., 1982).

The relative proportion of single-sex Catholic high schools has changed very little since the late 1940's when 46 percent of Catholic high schools were single-sex (Riordan, 1990), despite significant changes in the number of Catholic high schools and, in some cases, in their student composition. For example, Yeager reported that 16 percent of the schools in *The Catholic High School: A National Portrait* had changed from a single-sex to a coed school. However, a 1988 estimate, based on a stratified random sample of 208 schools, indicated a drop in the percentage of single-sex schools (38 percent), especially for girls (from 26 percent in 1983 to 20 percent in 1988) (Lee & Marks, 1990).

High school principals report that single-sex and coed Catholic high schools are similar in

important ways. In *The Catholic High School: A National Portrait* (Yeager et al., 1985), principals of single-sex and coed Catholic high schools judged their schools were alike in their sense of community, average daily attendance, and the promotion of faith among their students. In addition, the principals of both types of schools reported similar levels of satisfaction and morale for their teachers, as well as comparable levels of motivation and satisfaction for their students.

Single-sex Catholic high schools, however, differ from coed Catholic high schools in several demographic categories. First, single-sex high schools are more likely to be privately owned than are coed high schools. Over two-thirds of the single-sex Catholic schools in *High School and Beyond* were privately owned, mostly by religious communities (Bryk et al., 1984; Lee & Bryk, 1986). Second, students in single-sex Catholic high schools, particularly boys, are more likely than students in coed schools to have attended public elementary schools (Lee & Bryk, 1986; Lee & Marks, 1990). Third, single-sex schools are more likely than coed schools to enroll significant percentages of minority students. In *The Catholic High School: A National Portrait*, the minority enrollment of almost a third of the single-sex schools exceeded 25 percent of their total enrollment; the same was true for only 15 percent of coed schools (Yeager et al., 1985). On the other hand, Benson et al. (1986) reported that boys' schools and coed schools were slightly more likely than were girls' schools to serve a significant number of low-income students. Using estimates from *High School and Beyond*, Lee and Marks (1990) found that black students were most likely to enroll in all-boys' schools and Hispanic students were most likely to enroll in all-girls' schools. Fourth, single-sex high schools are less likely than are coed schools to enroll students from single-parent families. In *High School and Beyond*, 19.1 percent of the girls and 13.1 percent of the boys in coed schools came from single-parent families, compared with 15.8 percent of the girls and 11.7 percent of the boys in single-sex schools (Lee & Marks, 1990).

All-girls' schools constitute the majority, about 60 percent, of single-sex Catholic high schools (Bryk et al., 1984; Guerra & Donahue, 1990; Yeager et al., 1985). Catholic girls' schools are more like private academies than are Catholic boys' schools (Bryk et al., 1984). Girls' schools usually are smaller than boys' and coed schools (according to *The Catholic High School: A National Portrait*, about two-thirds of girls' schools enrolled under 500 students), with a lower student-teacher ratio and more intimate, personal environments than other Catholic high schools (Lee & Bryk, 1986). Despite their private-academy images, however, Catholic girls' schools enroll students whose average socioeconomic status is lower than that of both boys and girls in coed schools, and far lower than that of boys in single-sex schools (Riordan, 1990). Catholic girls' schools seem to attract girls and their families who seek schools that have strong religious climates and safe environments, with few discipline problems (Bryk et al., 1984).

On the other hand, Yeager characterized Catholic boys' schools as models of economic efficiency (Yeager et al., 1985). Boys' schools generally are larger than girls' schools (according to *The Catholic High School: A National Portrait*, almost half of boys' schools enrolled over 750 students) and have higher tuition, teacher salaries, and per-pupil expenditures (Bryk et al., 1984; Lee & Bryk, 1986; Yeager et al., 1985). In addition, boys' schools have more faculty with advanced degrees than do girls' schools (Lee & Bryk, 1986). Riordan (1990) reported that 61 percent of the faculty of all-boys' Catholic high schools in *High School and Beyond* had advanced degrees, compared with 43 percent of the faculty of all-girls' schools and 37 percent of the faculty of coed schools. Boys' schools also had the highest stability rate for teachers: 31 percent of the faculty at all-boys' schools had at least 10 years of teaching experience, compared with 19 percent of the faculty of all-girls' schools and 15 percent of the faculty of coed schools (Riordan, 1990). Not unexpectedly, therefore, in selecting single-sex schools, boys and their families tend to emphasize the academic aspects of the schools (Bryk et al., 1984).

Academic Outcomes

Studies have revealed that students from Catholic schools, on average, outperform their public school counterparts on tests of academic achievement (see Chapter 4). What does the research show about the relative performance of single-sex and coed Catholic schools in terms of academic achievement?

In *Catholic Schools in Action*, Neuwien (1966) examined the performance on achievement tests of 12th graders in 11 boys', 14 girls', 14 coeducational, and two co-institutional Catholic high schools. Using a traditional school effects model, Neuwien compared the actual median achievement of each school with its expected achievement, as predicted by the median IQ of each 12th-grade group. Neuwien labeled as high-achieving the schools whose actual median achievement significantly exceeded their expected achievement. In like manner, schools whose actual median achievement was significantly lower than expected were labeled as low-achieving.

In Neuwien's study, single-sex Catholic high schools were more likely than coeducational and co-institutional high schools to deviate significantly from their anticipated academic performance. All-boys' high schools were more likely than the other high schools to exceed their expected achievement in social studies and mathematics and to fall short of their expected achievement in language arts. On the other hand, all-girls' schools were more likely than the other schools to be among the high-achieving schools in language arts and among the low-achieving schools in social studies, mathematics, and science. Coeducational schools did particularly well in science; four of the five schools achieving higher than expected in science were coeducational Catholic high schools.

Whether the results of Neuwien's research were due to the superiority of single-sex schools or to an interaction between gender and achievement area is unclear. Neuwien did not report comparisons of test performance of same-sex students in different types of schools, so it is not possible to isolate the differential effects of single-sex and coed schools. Furthermore, the differences observed between single-sex and coed schools might simply be a function of males doing better in mathematics and social studies and females doing better in language arts.

Subsequent research on Catholic high schools, with data from the *National Longitudinal Study of 1972 (NLS)*¹ and *High School and Beyond*, compared the performance of same-gender students in single-sex schools and coed schools with each other, and, on occasion, with that of public school students. From his analysis of NLS data, Riordan (1985, 1990) suggested that Catholic single-sex schools were nearly twice as effective as Catholic coed schools and that the effects were particularly strong for girls. Riordan (1985) found that students from Catholic single-sex high schools scored from .26 to .43 standard deviation units higher on mathematics, reading, and vocabulary tests than did students from public schools, while those from Catholic coed schools scored from .15 to .22 standard deviation units higher than their public school counterparts. The difference between the Catholic schools and the public schools was much greater for girls than for boys. The advantage that girls from single-sex Catholic high schools enjoyed over girls in public high schools was three times higher in reading, two times higher in vocabulary, and just slightly higher in mathematics than the advantage enjoyed by girls from coed Catholic high schools. The corresponding advantage for boys in single-sex Catholic high schools was more than two times greater than that for boys in coed Catholic high schools in mathematics, but just slightly higher in vocabulary and slightly lower in reading.

In a subsequent study, Riordan (1990) analyzed the performance of some NLS students seven years later in 1979. Once again, the results were particularly striking for girls from single-sex schools. Despite similar socioeconomic backgrounds, girls who attended single-sex Catholic high schools scored higher on tests of verbal and mathematical ability than did girls from coed Catholic high schools. These differences remained even after controlling for socioeconomic status, 1972 test performance, and the girls' educational attainment by 1979. On the other hand, no differences in verbal ability occurred for boys from single-sex schools and those from coed schools, and boys from coed schools scored higher than boys from single-sex schools when Riordan controlled for educational attainment.

Further evidence for differences between single-sex and coed Catholic high schools comes from *High School and Beyond*. Lee and Bryk (1986) statistically estimated the effects of attending a single-sex school, compared with a coed school on student achievement in reading, mathematics, science, and writing, both at the sophomore and senior years and on the sophomore-to-senior achievement change. The estimated effects of boys' schools were largest in the sophomore year, especially for reading, mathematics, and writing. These effects diminished by the senior year, but the effect for mathematics remained statistically significant. The boys' schools did not show any significant gain from 10th grade to 12th grade. The estimated effects of girls' schools over coed schools increased from the sophomore to senior years in all areas, with statistically significant growth occurring in reading and science.

Riordan (1990) also used the data from *High School and Beyond* to compare the performance of students from single-sex and coed Catholic high schools on advanced mathematics, writing, science, and civics. Riordan limited his analyses to these four tests because he felt they were more curriculum-dependent than the other tests given in *High School and Beyond*. After adjusting for initial ability and differences in home background, girls in single-sex schools outperformed girls in coed high schools in science and civics. Although boys in single-sex schools scored higher than boys in coed schools in mathematics, writing, and science, these differences were not significant when adjustments were made for initial ability and home background.

In addition, Riordan (1990) performed separate analyses for Catholic high schools that predominantly enrolled minority students. After statistical adjustments for initial ability, race, and home background, males in single-sex schools scored higher than males in coed schools in mathematics and females in single-sex schools scored higher than their counterparts in coed schools in science and civics. The average test advantage over a two-year period for boys in single-sex schools was 0.7 grade-equivalent units and the advantage for girls in single-sex schools was 0.8 grade-equivalent units.

In summary, studies show that students from Catholic single-sex high schools enjoy better performance on achievement tests than students from coed Catholic high schools and public high schools. The advantages for girls in single-sex Catholic high schools, compared with their counterparts in coed Catholic schools and public schools, exceed the advantages for boys from single-sex Catholic high schools, compared with their counterparts in coed Catholic schools and public schools.

Religious Outcomes

Very little research is available regarding whether students from coed and single-sex schools differ in their religious outcomes. The most detailed analyses of the differences between single-sex and

coed Catholic high schools on religious outcomes occurred in *Catholic Schools in Action*. Neuwien (1966) compared the religious understanding and attitudes of 12th graders from single-sex and coed Catholic high schools. For these analyses, unlike the ones reported for achievement, Neuwien examined the performance of four separate groups: girls in girls' schools; girls in coed schools; boys in boys' schools; and boys in coed schools.

Girls in girls' schools showed the best understanding of their religion. These girls showed the greatest consistency in selecting what Neuwien considered as the most advanced responses to items concerning church doctrine, law, and worship. In addition, girls in girls' schools usually ranked the highest of all groups in selecting "desirable" responses, those most in keeping with church teaching, to items that reflected religious, moral, social, civic, and family values.

Although Neuwien speculated that girls may have more of a natural tendency to be more conforming than boys and perhaps to provide more socially desirable responses, the differences between the responses of all-girls' schools and all-boys' schools, and those between girls in all-girls' schools and girls in coed schools, often were large. Furthermore, other studies also have found a tendency for girls' schools to promote religious outcomes. Benson et al. (1986) found that the percentage of females in a Catholic high school was a significant predictor of the students' church commitment and responsible behavior. Furthermore, the principals of girls' schools more than principals of other Catholic high schools reported a high emphasis in their schools on the social teachings of the church and the centrality of religion in the students' lives.

Lee and Bryk (1986) reported a finding somewhat at variance with those discussed above. Their analyses of a random sample of Catholic high school students from *High School and Beyond* showed that students in coed Catholic high schools scored higher than students in single-sex Catholic high schools on a measure of religiousness, which was a composite index that included student self-reports of frequency of attendance at religious services and degree of religious conviction. Girls in coed schools scored .39 standard deviation units higher on religiousness, and boys in coed schools scored .28 standard deviation units higher than did their respective counterparts in single-sex schools. The percentage of non-Catholics, which may have affected the measure of religiousness, was similar in each group, ranging between 7.8 percent and 9.9 percent. However, the students in coed schools were more likely to have attended Catholic elementary schools than were the students in coed schools. This higher likelihood may be an indirect measure of the family religiousness, which relates to the religiousness of students (see Chapter 4).

Academic Attitudes

Studies consistently have found that students in single-sex Catholic high schools have more positive academic attitudes than students in coed Catholic high schools. Students in both boys' and girls' Catholic schools find both their schools and the quality of their teachers much more to their satisfaction than do their counterparts in coed Catholic schools (Lee & Bryk, 1986; Neuwien, 1966; Riordan, 1985).

In *Catholic Schools in Action*, students in single-sex Catholic high schools were more likely than their counterparts in coed schools to express their satisfaction with Catholic schools (Neuwien, 1966). Larger differences in satisfaction ratings occurred among girls than among boys, and girls in girls' schools tended to be the most satisfied among the groups with their teachers. In addition, single-sex school students, more than coed school students, strongly agreed that they preferred discussion to memorization in religion classes. The differences between different types of schools were similar for boys and girls.

According to Riordan's analysis of NLS data, a higher percentage of students in both boys' and girls' Catholic high schools, compared with those in coed Catholic high schools, indicated their satisfaction with the academic instruction in their schools (Riordan, 1985). The differences for males in the two types of schools (83.2 percent vs. 68.6 percent) were larger than the differences for females (83.9 percent vs. 74.4 percent). Student motivation may have played a role in the satisfaction ratings. The students in the single-sex schools were more likely than the students in the coed schools to be enrolled in a college-preparatory track and to do more homework.

In *High School and Beyond*, once again students in single-sex Catholic high schools rated their schools and the quality of their teachers much more positively than students in coeducational Catholic high schools (Lee & Bryk, 1986). Girls in girls' schools and boys in boys' schools indicated a higher interest in both mathematics and English than did their counterparts in coed schools. The average differences between same-sex students in the two types of schools were larger for girls (.10 standard deviation units for math and .12 standard deviation units for English) than for boys (.03 standard deviation units for math and .06 standard deviation units for English). In addition, girls attending girls' Catholic high schools spent more time on homework, watched television less, were less likely to experience discipline problems and to be absent, and had more positive attitudes toward academics than students in coed schools and boys in boys' schools (Bryk et al., 1984; Lee & Bryk, 1986).

Schneider and Coutts (1982) studied the environments of 13 Catholic high schools in Canada: five coeducational schools, four girls' schools, and four boys' schools. Although the evidence from *The Catholic High School: A National Portrait* suggested that both single-sex and coed Catholic high schools placed similar emphasis on academic achievement (Yeager et al., 1985), students from the single-sex Canadian schools ranked "getting high grades" as contributing more to the attainment of status among their peers than did students from the coed Canadian schools (Schneider & Coutts, 1982). The differences between the two types of schools regarding the rating of the importance of getting high grades were larger for girls than for boys.

Educational Aspirations

In the early 1960's, Catholic high school boys were more likely than Catholic high school girls to agree on the importance of going to college (Neuwien, 1966). Such a finding is not unexpected since males were more likely than females to attend college at that time. In 1963, for example, 62 percent of all college students were males (Snyder, 1989). The gender composition of the school, however, did have an effect on the educational aspirations of the students. A higher percentage of boys in boys' high schools (86 percent) than in coed high schools (77 percent) and of girls in girls' high schools (71 percent) than in coed high schools (63 percent) agreed on the importance of attending college.

While girls' educational aspirations and their likelihood of attending college had substantially increased by the early 1980's (in 1983, almost 52 percent of all college students were women), attendance at single-sex Catholic schools continued to result in higher educational aspirations for both males and females than did attendance at coed schools (Lee & Bryk, 1986; Riordan, 1990). Students in single-sex Catholic high schools had higher seven-year educational aspirations and more of them expected to receive a college degree than did students in coed Catholic high schools. The differences in educational aspirations between single-sex and coed schools were slightly higher for boys than for girls.

Lee and Marks (1990) found a larger difference in educational aspirations, measured two years

after high school, for women than for men.² Female college students who had attended Catholic girls' schools had higher educational aspirations than females who had attended coed Catholic high schools. Graduates of boys' Catholic high schools had the highest educational aspirations after two years of college, while females from coed Catholic high schools had the lowest. The fact that graduates of single-sex schools, especially boys, were more likely than graduates of coed schools to attend selective colleges probably contributed to their high educational aspirations.

Affective Outcomes

High School and Beyond provided data concerning the self-concept, sense of personal control, and sex role stereotypes of high school students. Overall, the effect of school type of these affective outcomes was small and not consistent across the outcomes. Students in single-sex Catholic schools had higher self-concepts than did students in coed Catholic schools, both as sophomores and as seniors; however, only the differences for girls in the 10th grade were significant (Lee & Bryk, 1986). Girls in both single-sex and coed schools exhibited a slight increase in their self-concepts from the 10th to the 12th grade, while the boys' self-concepts declined slightly. Lee and Marks (1990) found no differences after four years of college in the self-concepts of Catholic school graduates, regardless of the type of Catholic school attended.

On the second affective outcome, the sense of personal control, the Catholic high school students in *High School and Beyond* were above average, which means that the students were more internal than external in their locus of control. Students with a more internal sense of personal control perceive that they have power over their actions and the consequences of these actions. On the other hand, students with a more external sense of personal control perceive that factors extrinsic to themselves, fate, or luck determine the outcomes of their actions.

The sense of personal control of the two groups of students who were the highest in internal control, boys in coed schools and girls in girls' schools, increased slightly from the 10th to the 12th grade, while the sense of personal control of boys in single-sex schools was virtually unchanged and that for girls in coed schools decreased slightly (Lee & Bryk, 1986). The only statistically significant effect of a single-sex school on locus of control in Lee and Bryk's analysis occurred for girls in the 12th grade; however, Riordan (1990) found a statistically significant positive effect of single-sex schools for boys in predominantly minority Catholic schools. Although graduates of Catholic girls' high schools had the most internal sense of personal control after four years of college, the differences between graduates from single-sex and coed schools were not statistically significant when controlled for personal, family, and school characteristics (Lee & Marks, 1990).

The third affective outcome, which assessed students' sentiments toward adult sex roles, was a composite of three items: the compatibility of motherhood and work; the traditional role of men as achievers; and the relative satisfaction of women with careers versus a traditional role as homemaker. Once again, the estimated effects favored single-sex Catholic high schools, with girls' schools showing much larger effects than boys' schools (Lee & Bryk, 1986). Girls in girls' schools were much less likely to indicate stereotypic attitudes than were girls in coed high schools. Furthermore, while the stereotypic attitudes of all girls declined from the 10th to the 12th grade, those in girls' schools declined more. Boys in Catholic high schools saw a woman's role as being more traditional, hence more stereotypic, than did girls in Catholic high schools (Bryk et al., 1984). The boys' stereotypes concerning traditional sex roles slightly diminished by the 12th grade; however, the boys' attitudes still were more stereotypic than the girls' attitudes.

Riordan's (1990) analysis suggested that, after adjusting for home background and student ability,

white males in coed Catholic schools were less stereotypic in their attitudes than were white males in boys' schools, but that the stereotypic attitudes of minority boys were lower in boys' schools than in coed schools. On the other hand, Bryk's (Bryk et al., 1984) analysis, which did not adjust for home background and ability, showed that boys in religious order schools held less stereotypic attitudes concerning women than did boys in other Catholic schools.

Lee and Marks (1990) analyzed the adult sex-role sentiments of college students who had graduated from Catholic high schools four years earlier. As Lee and Bryk (1986) had found for high school students, women from single-sex high schools continued to report significantly less stereotypic attitudes about the role of women in the workplace than did women from coed high schools. No differences in sex-role stereotyping occurred for male graduates of single-sex and coed Catholic high schools.

The Cultures of Single-Sex and Coed Schools

In 1961, Coleman described in *The Adolescent Society* (Coleman, 1961) an adolescent subculture that existed in schools. In that subculture, students value physical attractiveness and heterosexual popularity more than academic achievement. Coleman posited that the adolescent subculture thus constitutes an impediment to the attainment of educational goals. In fact, he demonstrated the existence of a relationship between a strong youth culture and poor academic outcomes. Because the adolescent subculture might be expected to be higher in a coed school than in a single-sex school, he hypothesized that coeducation may have a negative impact on the academic achievement and social adjustment of students. What influenced Coleman's thinking was his finding that nonacademic factors influenced status among peers more than did scholastic achievement.

To what extent do single-sex and coed Catholic high schools show evidence of the presence of an adolescent subculture? How does the subculture of Catholic girls' schools compare to that of Catholic boys' schools?

Riordan (1990) constructed a measure of the adolescent subculture from the responses to several questions asked of students in *High School and Beyond*. The questions concerned students' views of how they were seen by their classmates, how often they dated, whether they were going steady or were engaged, and how they felt toward good students and toward athletic students. For students in Catholic high schools, the adolescent subculture was highest among boys in single-sex schools and lowest among girls in single-sex schools. Counter to Coleman's hypothesis, Riordan (1990) found that, for boys, higher test scores were associated with higher measures of the subculture. The results for girls, however, were in accordance with Coleman's hypothesis: the adolescent subculture was negatively related to test scores. Girls who scored lower on the measure of adolescent subculture tended to have higher test scores. The adolescent subculture then seems to have little effect on the performance of boys in Catholic schools, but a substantial effect on the performance of girls. From these findings, single-sex schools appear to have specific benefits, especially for girls.

In addition to the reduced adolescent subculture in all-girls' schools, the literature identifies several factors that may explain the benefit of single-sex schools, particularly for girls. First, students in single-sex schools have a greater number of academic role models of their own gender, making better instruction and higher academic standards possible (Lee & Bryk, 1986; Riordan, 1985, 1990). As more successful academic role models of the same sex are available, being a good

student assumes more legitimacy. Students in both boys' and girls' Catholic schools find both their schools and the quality of their teachers much more to their satisfaction than do their counterparts in coed Catholic schools (Lee & Bryk, 1986; Neuwien, 1966; Riordan, 1985). Girls in girls' schools tend to be the most satisfied with their teachers (Neuwien, 1966).

Second, single-sex schools place more emphasis on control and discipline than do coed schools. Students in coed Catholic high schools perceive their school environments as more friendly and play-oriented, with less emphasis on control and discipline than do students from single-sex schools (Schneider & Coutts, 1982). Riordan (1990) noted that the homogeneity of gender in a single-sex school allowed for greater control and concentration on academic endeavors than the heterogeneity of gender in a coed school. In particular, all-girls' Catholic high schools tend to have a low adolescent subculture and a high degree of discipline. Riordan (1990) reported a moderately high correlation ($r=-0.39$) for girls between the measure of adolescent subculture and school discipline, whereas the correlation for boys was very small ($r=0.09$). Moreover, Schneider and Coutts (1982) found that the teachers in the single-sex schools in their study were less tolerant of rebelliousness, inattentiveness, and disobedience among students than were the teachers from the coed schools.

Third, the influence of a religious congregation, which is much more likely to sponsor a single-sex school than a coed school, assists single-sex schools in developing a strong sense of community (Bryk et al., 1984; Lee & Bryk, 1986). This community sense, which is particularly notable in all-girls' schools, serves to produce an academic and social culture that is counter to the adolescent subculture.

Fourth, students from single-sex Catholic high schools, particularly all-girls' schools, see leadership as contributing more to the attainment of status among their peers than do students from coed schools (Schneider & Coutts, 1982). All-girls' schools enhance the leadership potential of girls by enabling them to fill important student positions in the school, free from the stigma of gender stereotypes.

SUMMARY

1. Less than half of the Catholic high schools are single-sex schools, and about 60 percent of these are girls' schools.
2. An emerging body of research shows that single-sex Catholic high schools seem to have specific advantages over coed Catholic high schools in the areas of academic achievement, educational aspirations, attitudes and behaviors related to academics, and stereotypes concerning adult sex roles.
3. The advantages of single-sex schools are particularly notable for girls.
4. The reasons offered for the benefits of single-sex schools over coed schools are: (1) separation of academic concerns from social concerns; (2) greater emphasis on discipline; (3) better academic and social role models; (4) more opportunities for leadership; and (5) higher sense of community in the school.

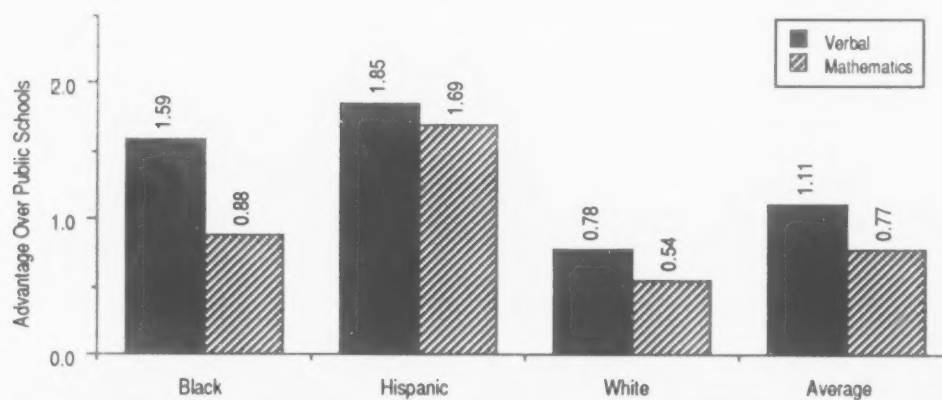
Table 8-1: Test Results (Z scores) from *High School and Beyond* by Race/Ethnicity

	White		Black		Hispanic	
	Catholic	Public	Catholic	Public	Catholic	Public
Vocabulary	.32	-.05	-.39	-.93	-.12	-.75
Reading	.21	.00	-.27	-.77	-.18	-.73
Math 1	.25	.00	-.46	-.87	-.23	-.71
Math 2	.15	-.03	-.36	-.63	-.16	-.47
Science	.21	.12	-.58	-.96	-.29	-.69
Writing	.31	.00	-.37	-.91	-.16	-.65
Civics	.23	-.04	-.13	-.66	-.11	-.42
Academic Performance	.25	-.01	-.44	-.91	-.23	-.77

Note: Academic Performance = Reading + Math 1 + Math 2.

Source: Greeley (1982, p. 42, Table 4.1).

Table 8-2: Catholic School Advantage over Public Schools in Items Correct on Verbal and Mathematics for Racial/Ethnic Groups in *High School and Beyond*



Source: Coleman & Hoffer (1987, p. 122, Table 5.1).

Table 8-3: Average Performance of Racial/Ethnic Groups on NAEP

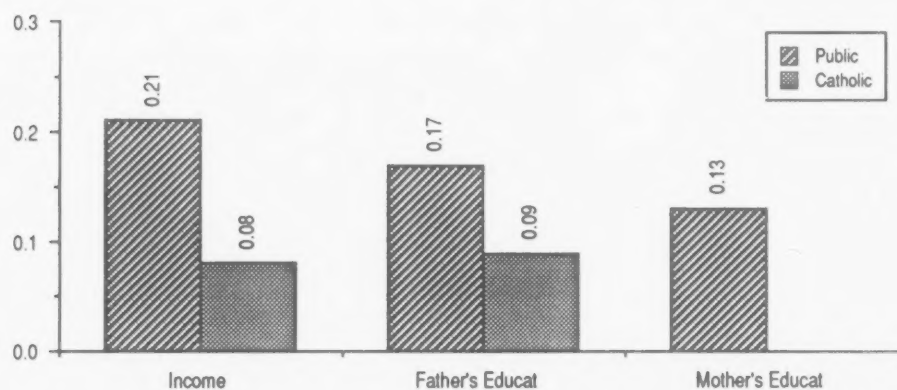
	Grade 3		Grade 7		Grade 11	
	Catholic	Public	Catholic	Public	Catholic	Public
Mathematics						
White	223.9	219.2	284.5	272.6	316.1	308.4
Black	188.2	187.3	254.8	244.6	294.4	278.1
Hispanic	199.8	194.9	267.6	249.7	306.6	284.6
Science						
White	226.6	222.0	269.2	257.9	303.8	299.3
Black	180.8	179.2	230.9	215.7	273.3	251.8
Hispanic	196.1	189.0	237.9	220.3	279.9	262.6

Source: Lee & Stewart (1989, p. 11, Table 3).

	Reading					
White	41.2	39.6	54.1	49.9	60.5	56.9
Black	35.1	33.1	48.8	44.9	55.2	51.0
Hispanic	35.4	33.1	50.2	43.8	59.0	50.9

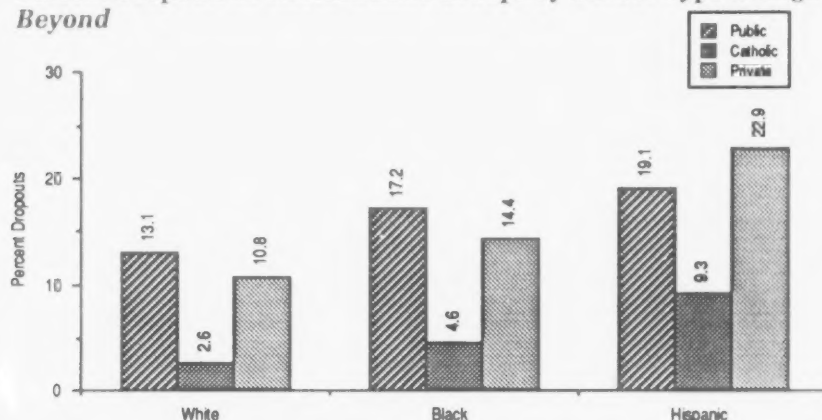
Source: Marks & Lee (1989, p. 12, Table 4).

Table 8-4: Correlations for Minority Students of Academic Performance with Income and Parents' Education



Source: Greeley (1982, p. 74, Table 7.1).

Table 8-5: Percent Dropouts in Racial/Ethnic Groups by School Type in High School and Beyond



Source: Coleman & Hoffer (1987, p. 127, Table 5.3).

Table 8-6: Percentage in Racial/Ethnic Groups who Rated as Excellent Instructional Quality and Teacher Interest in High School and Beyond

	White		Black		Hispanic	
	Catholic	Public	Catholic	Public	Catholic	Public
Quality Instruction	28%	11%	24%	13%	31%	10%
Teacher Interest	25%	10%	23%	11%	28%	12%

Source: Greeley (1982, p. 42, Table 4.2).

Table 8-7: Percentage of Parents of Pre-High-School-Age Children in the Archdiocese of Washington in 1983 Selecting Primary Reason for Sending Children to Catholic Schools

	White			Black		
	Catholic	Non-Cath	All	Catholic	Non-Cath	All
Academic	47%	67%	49%	56%	66%	61%
Religious ¹	31%	7%	29%	22%	9%	16%
Discipline	11%	14%	11%	12%	14%	12%
Alternative to Public Schools	4%	9%	5%	4%	5%	4%
Other ²	6%	3%	6%	7%	6%	6%
Number of Respondents	6176	565	6736	1492	1300	2792

Source: Convey (1986a).

¹Religious is sum of three items: Religious Education, Presence of Priests and Religious, and Discussion of Social/Moral Issues.

²Other is sum of three items: School's Location, Friends Attend School, and Other.

CONCLUSIONS AND FUTURE RESEARCH

By design, Catholic schools are academic and faith communities that foster the academic, religious, and value development of their students. To achieve these ends, Catholic schools attempt to create an environment that is characterized by a strong sense of community, high academic standards, discipline and order, a highly committed and collegial faculty, and high levels of parental interest and participation. The evidence from the research suggests that Catholic schools generally are very successful in achieving these goals.

Are Catholic schools more effective than public schools in achieving their goals? This question is difficult to address and impossible to answer conclusively. Some of the observed differences in the outcomes of Catholic schools and public schools could be attributed to non-school factors, such as the type of students enrolled and high levels of parental involvement in their education. Recent studies, however, have produced better empirical evidence to support some measurable Catholic school effect. These same studies, however, also show that good public schools will produce similar effects. What evidence exists for a Catholic school effect?

THE RELATIVE EFFECTIVENESS OF CATHOLIC SCHOOLS

Academic Outcomes

The most convincing evidence for the effectiveness of Catholic schools comes from studies based on three national databases: the *National Assessment of Educational Progress*, the *National Education Longitudinal Study of 1988*, and, especially, *High School and Beyond*. Although no absolute criterion for what constitutes effectiveness is established, these and other studies demonstrate that Catholic elementary and secondary school students, on average, score better on tests of academic achievement than do public school students. The differences in the achievement between Catholic school and public school students increase with grade level, occur with cross-sectional and longitudinal data, and are reduced, but still significant, when analyses control for family background.

Catholic schools also send a higher percentage of their students to college than do public schools and are more successful in preventing dropouts than are public schools. Moreover, for students who enter college, those from Catholic schools are more likely to complete college than are those from public schools.

Catholic schools seem to be particularly effective for disadvantaged students, especially minority students, but also for those from families with lower levels of parental education or family income.

Studies show that minority students in Catholic schools perform better on tests of academic achievement, have higher educational aspirations, and are less likely to drop out of school than are minority students in public schools. Further, the within-school achievement differences between minority students and other students are substantially less in Catholic schools than in public schools. Because of these findings, James Coleman and his associates portrayed Catholic schools as better examples than public schools of the "common school" ideal of American education.

On the other hand, some studies have found that no differences occur in the performance of students from higher social class Catholic and public high schools and, in some cases, students in public schools score slightly higher, but not significantly. Furthermore, early results from NELS:88 indicated that the achievement differences between elementary students from Catholic and public schools are smaller than differences observed for high school students. Moreover, some critics have argued that the Catholic school effects are really too small to have practical import or are based on tests that are too short to be of any significance.

Religious Outcomes and Values

Attending a Catholic school has a measurable effect on the behaviors and values of students, over and above the influence produced by the religiousness of their parents. Andrew Greeley and his associates conducted much of the research on the religious outcomes of Catholic schools in a series of studies, beginning in 1966 with *The Education of Catholic Americans*, and continuing into the 1980's. Greeley's work demonstrated that the relationship between attendance at a Catholic school and various measures of religious attitudes, knowledge and behaviors — church attendance, reception of the sacraments, prayer, attitude toward vocations, doctrinal beliefs, doctrinal orthodoxy, activity in parish organizations, and closeness to the church — increased from the 1960's to the 1980's. As a result, Greeley argued that Catholic schools are much more important in times of crises in the church than in times of stability.

Other research indicates that Catholic students in Catholic high schools are more likely than Catholic students in public high schools to attend Mass regularly, view religion as more important in their lives, and have higher religious self-evaluations. In addition, Catholic school students generally place family values ahead of materialistic goals that equate success in life with having a good job and making a lot of money.

Alternative Explanations

Selection

As indicated earlier, the problem of separating student effects from school effects is a chronic one in school effectiveness research. Regardless of the methodology, the sophistication of the analysis, and the number and kinds of confounding variables included, the differences observed could be more a function of the students enrolled than of the school itself. Schools that enroll better students would be expected to have higher test scores, fewer dropouts, and higher educational aspirations than other schools.

Catholic schools do enroll students from a wide socioeconomic range and not all Catholic schools are highly selective. As the evidence presented in Chapter 3 indicates, families at the lowest and highest socioeconomic levels generally are somewhat underrepresented in Catholic schools.

However, studies also show that, on average, the socioeconomic status of students in Catholic schools, the educational level of their parents, and their family income are higher than those of students in public schools. Therefore, the possibility remains that the observed differences between Catholic schools and public schools are due mainly to differences in the ability, motivation, and family background of the students that each enroll.

Parents

Another possible non-school explanation for an apparent Catholic school advantage is the support provided in the home. Parents choose to send their children to Catholic schools for a variety of reasons, which include religious formation and value development. The research indicates that Catholics view the religious nature of Catholic schools as their most distinctive quality and their most important asset, and many parents send their children to Catholic schools primarily because of their religious nature. However, most studies confirm that the school's academic program is a necessary prerequisite for the majority of Catholic parents and a sufficient reason for some parents to enroll their children in a Catholic school. At the same time, most parents who select a Catholic school primarily for academic reasons also value the school's Catholic tradition, religious instruction, sense of community, and caring environment. Whatever reasons parents have for choosing Catholic schools, most parents seek the reinforcement of the values that they stress at home.

The high expectations that Catholic school parents have for their children, the extent to which they monitor their children's work, and their level of involvement in the school, each of which studies have shown is higher than that of the average public school parent, are important contributors to students' success. These factors and the quality and intensity of the interactions they produce are consistent with Coleman's hypothesis of social capital, to which he attributed a large degree of the Catholic school's success.

School Effects

While differences in student characteristics and family background, including parental involvement, remain as possible explanations of the differences between the performance of Catholic school and public school students, recent studies have produced empirical evidence that some school-related factors do in fact contribute to observed differences in student and teacher outcomes over and above the possible contributions of student background and family characteristics. The findings of Tony Bryk and Valerie Lee (Bryk & Raudenbush, 1989; Bryk & Thum, 1989; Lee & Bryk, 1988, 1989; Lee, Dedrick, & Smith, 1991) regarding the contribution of school-related factors are particularly compelling. Moreover, Catholic schools tend to be higher on these school-related factors than do public schools. This evidence is important since it provides stronger empirical support for the possible effectiveness of Catholic schools that is separate from explanations that depend upon the type of students enrolled. What are these school-related factors and how do Catholic schools measure against them?

The school-related factors that research has identified as contributing to differences in student and teacher outcomes involve the organization of schools and their environments. Research shows that when these organizational and environmental factors are present in any school, public or Catholic, measurable differences in outcomes occur. For the most part, however, Catholic schools are more likely to evidence these school-related factors than are public schools. These factors are the school's academic and curricular policies and the school's characteristic culture, as indicated

by its consensus on goals, its sense of community, its standard of order and discipline, and the collegiality, commitment, efficacy and satisfaction of its teachers.

Academic and Curricular Policies

Studies (Coleman & Hoffer, 1987; Lee & Bryk, 1988, 1989) show that organizational differences among schools regarding academic and curricular policies substantially influence students' achievement. Furthermore, these organizational differences are under the control of individual schools, rather than a result of the types of students enrolled. Therefore, the presence of such policies provides evidence for a school effect.

Catholic schools have a focused curriculum, which includes a strong commitment to a core academic program for all students (Bryk et al., 1984). Lee and Bryk (1988) convincingly demonstrated that the course enrollment patterns of students in Catholic schools not only are a function of the type of students served, but also a reflection of a school philosophy that values academics. Instruction that is tailored to the needs of the students at different ability levels varies in pacing and intensity, but not content. Even the electives in Catholic schools ordinarily have an academic orientation (Bryk et al., 1984). Furthermore, school policies, rather than student choices, determine placements in different curricular tracks.

As a result of school policies, Catholic high school students, regardless of background, are more likely to be in an academic program than are public high school students (Coleman & Hoffer, 1987; Lee & Bryk, 1988). Catholic high school students also are more likely to take more and more rigorous academic courses than are public high school students (Bryk et al., 1984; Coleman et al., 1982; Rock et al., 1986). Moreover, the educational aspirations of Catholic school students correspond more closely to their academic placements than do those of public school students (Lee & Bryk, 1988). In Catholic schools, expectations are high for all students, regardless of background and ability.

The strong emphasis on academic work benefits all students, particularly disadvantaged students. As the research reviewed in this book indicates, the results of this commitment to academics are clearly evident in Catholic schools: homework is more likely assigned and more time is spent on it, attendance is better, dropouts are fewer, and interest and effort are higher.

Characteristic Culture

The culture or ethos of a school, the spirit that gives a school its distinctive character, has long been hypothesized as an important component of effective schools. Most studies provided either anecdotal or descriptive evidence that suggested the centrality of a school's culture to its success (Grant, 1988; Kleinfeld, 1979; Lesko, 1988; Lightfoot, 1983; Rutter et al., 1979). However, recent studies have produced stronger empirical evidence for the importance of the school's culture in affecting student and teacher outcomes (Bryk & Driscoll, 1988; Bryk & Thum, 1989; Lee et al., 1991; Newmann et al., 1989).

A school's culture develops intentionally from its goals and objectives, the vision and leadership of its administrators, the commitment and sense of purpose of its faculty, the shared values of the entire school community, including parents, and, in the case of a private school, the ideals of its founders. Students help fashion a school's culture; however, the adult members of the school community are its major architects. Thus, a school's culture is predominantly a school effect, rather than merely a function of the type of students enrolled.

Strong evidence exists that a sense of community dominates the culture of the typical Catholic school and plays a major role in the school's effectiveness. Called a "functional community" by Coleman, this faith community fosters an environment that supports the religious and academic norms of parents by establishing a strong academic curriculum, by exercising greater control within the school in order to place greater demands upon students, and by creating a communal atmosphere among faculty and students that is conducive to the social and spiritual development of students.

Research shows that the environment of Catholic schools promotes student learning more than does the environment and climate of public schools. Catholic schools function more as communities than do public schools and have fewer disciplinary problems. Catholic schools generally place a stronger emphasis on academics and have more demanding academic requirements than do public schools. Catholic school teachers rate their students higher in cooperation, motivation, discipline, and school interest than public school teachers rate their students. In addition, compared with the typical public school student, the typical Catholic school student spends more time on homework, misses fewer days of school, and is less likely to cut class.

Teachers

Many teachers choose to work in Catholic schools because of their desire to minister to the faith community in the schools. At the same time, most teachers evidence a high commitment to students and to the professional aspects of teaching. Compared with public school teachers, Catholic school teachers generally enjoy higher levels of collegiality, are more committed, are happier with their relationships with their principals, and have higher job satisfaction and sense of efficacy. Catholic school teachers perceive that the goals of their schools are clearer, and they are more in agreement among themselves concerning the goals and policies of the schools than are public school teachers. Catholic school teachers feel they have more influence over matters of school policy and more control over instructional decisions than do public school teachers. In addition, students in Catholic schools rate the quality of their teachers and the instruction they receive higher than do students in public schools. Finally, students in Catholic schools, compared with students in public schools, report getting along better with their teachers and perceive the teachers to be more interested in them.

Conclusion

Empirical evidence is available that school effects clearly explain some of the differences in student outcomes that are not attributable to the types of students enrolled. These effects are found in schools with focused academic and curricular policies and with supportive cultures. Such school-related factors are likely to occur in all good schools; however, the average Catholic school is more likely than the average public school to possess them.

Although the research supports the higher average outcomes of Catholic schools and the greater likelihood of Catholic schools possessing effective school-related factors, not every Catholic school is necessarily an effective school. As indicated in Chapter 1, the effectiveness of a particular school must be separately ascertained. Schools vary in their degree of effectiveness and each school must be judged on its own merits. The research does suggest, however, that Catholic schools are more likely than public schools to possess those characteristics that research has associated with effective schools and that less variability occurs in the measures of effectiveness among Catholic schools than among public schools.

FUTURE PRIORITIES

Despite the dramatic increase in the number of studies dealing with Catholic schools during the past 25 years, the research agenda on Catholic schools is far from complete. A concerted research effort is needed that will enable researchers, policy makers, and consumers to understand Catholic schools better, monitor the quality of their products, and continue to identify those factors that contribute to the schools' effectiveness. This research effort requires three things: (1) the use of new methodologies, which will improve the quality of the studies on Catholic schools; (2) the establishment of national research priorities, which will require a coordinated, well-funded effort by Catholic educational leaders and researchers; and (3) the further examination, in greater depth, of the nature of Catholic schools and their effects, which individual researchers or graduate students, perhaps in doctoral dissertations or master's theses, could profitably explore.

Methodological Priorities

Three changes in the design of studies on Catholic schools would result in better information concerning the schools. The methodological priorities are: (1) an increase in studies using an ethnographic design, as opposed to a survey design; (2) the use of longitudinal, rather than cross-sectional, designs; and (3) the incorporation of more appropriate statistical models to analyze data.

Ethnographic Studies

The vast majority of major studies on Catholic schools are descriptive or comparative studies that employ a survey research methodology. Survey research typically uses questionnaires or interviews to determine opinions, attitudes, and perceptions. The advantage of survey research generally is that a considerable amount of data is obtained with a minimal investment of time and money. However, the quality of the data from survey research is limited by the quality of the questions asked and by both the knowledge of the person who responds to the information requested and his or her willingness to answer the questions accurately.

The research on Catholic schools would benefit from an increase in the use of an ethnographic methodology. Ethnographic research is a type of observational research in which the researcher performs an in-depth investigation of a situation, both as an observer and as a genuine participant. Ethnographic research usually occurs in a naturalistic setting; that is, the researcher records and studies behavior as it normally occurs. This type of research is labor-intensive because data are collected on many variables over an extended period of time. These data may come from interviews, field notes, diaries, chronologies, questionnaires, checklists, and audio or video recordings. The analysis of ethnographic data is largely qualitative and inductive, rather than statistical and deductive.

Since the late 1970's, educational researchers have recognized the value of ethnographic studies and, as a result, the frequency of these studies increased rapidly in the 1980's. A major reason educational researchers turned more to an ethnographic methodology, traditionally the principal methodology for many anthropologists and sociologists, was the ineffectiveness of survey research to provide for sufficient understanding of how schools work and how students learn.

With regard to research on Catholic schools, ethnographic studies would be particularly useful in examining how the transmission of values occurs in the school, to what extent values are integrated into the entire curriculum, how the faith community of the school is established and

nurtured, and how the commitment of the teachers and the leadership of the principal affect the outcomes of Catholic schools. Two excellent examples of ethnographic studies involving Catholic schools are Lesko's (1988) study of the culture of a Catholic high school and Helm's (1990) study of the leadership of four elementary school principals.

Ethnographic research requires committed, well-trained, and disciplined researchers, who have the time and funding to devote to this intensive type of research. While ethnographic research demands substantial effort, the methodology has the potential to yield rich insights that may elude researchers who use a survey methodology.

Longitudinal Studies

Despite the increasing popularity and utility of ethnographic research, the majority of educational research, including studies on Catholic schools, will continue to collect data using tests, questionnaires, and surveys and will use quantitative, statistical methods to analyze these data. Thus, a second methodological priority involves an improvement in the design of quantitative studies about Catholic schools.

Longitudinal studies, which follow the same group of students over an extended period of time, would greatly assist Catholic educators in learning about the effects of Catholic schools. The major longitudinal studies involving Catholic schools are those associated with the federally-sponsored *National Longitudinal Study, High School and Beyond*, and *The National Education Longitudinal Study of 1988*. No important study of Catholic schools under Catholic auspices has used a longitudinal methodology. Some studies were retrospective examinations by adults on the effects of Catholic schools on their behavior. Other studies were cross-sectional, comparing two different groups of students at two grade levels with data collected at the same time. And some studies were snapshots of a group of students at a particular time.

A longitudinal study permits a microscopic view of development and growth. In such a study, the individual studied becomes his or her own control. Thus, a longitudinal study eliminates many of the limitations associated with retrospective, cross-sectional, and one-shot studies. A longitudinal study would assist in better understanding how Catholic schools promote the development of religious knowledge and values, and how successful the schools are in doing this, a topic of great importance to the American bishops, Catholic educational leaders, and consumers of Catholic education.

Longitudinal studies are very expensive; they require dedicated resources, careful management, and adequate funding. A nation-wide, longitudinal study of Catholic schools would require massive funding, especially if the data are collected over a period of years. However, longitudinal studies in local situations are feasible, particularly if the time between the data collections is somewhat short and the number of subjects is rather small.

Analytic Priorities

The use of modern advanced statistical methods for analyzing data, when their use is appropriate, would increase the potential of studies on Catholic schools to uncover the true relationship between the variables being studied and the credibility of the findings from these studies. Catholic school researchers have commonly used regression models and various multivariate methods to analyze data. However, other important statistical techniques, such as structural equations, path

analysis, or LISREL models, have not been widely used by Catholic school researchers.

A promising recent analytic strategy for studying school effects is the hierarchical linear model (Raudenbush & Bryk, 1986). Educational researchers have long recognized the multilevel nature of the data used to study the effectiveness of schools. Some data are from individual students (student-level), while other data are from entire classrooms, schools, or districts (school-level). The use of different levels of data in regression models has always been unsatisfactory. A hierarchical linear model accommodates both student-level and school-level data, avoids problems associated with aggregation bias, and permits better estimates of the school effects. Anthony Bryk from the University of Chicago, one of the chief architects of this recent contribution to the statistical literature, and Valerie Lee from the University of Michigan already have applied the hierarchical linear model to data from Catholic schools (Bryk & Raudenbush, 1989; Bryk & Thum, 1989; Lee & Bryk, 1989; Lee, Dedrick, & Smith, 1991; Lee & Smith, 1990).

National Research Priorities

The two major initiatives proposed as national research priorities for Catholic education are: (1) a comprehensive study of Catholic elementary schools, similar to the studies of Catholic secondary schools, such as *The Catholic High School: A National Portrait* and *Catholic High Schools: Their Impact on Low-Income Students*; and (2) a comprehensive study of the religious outcomes of Catholic schools.

Research on Catholic Elementary Schools

The national leaders of Catholic schools should give the highest priority to sponsoring a comprehensive, empirical study of Catholic elementary schools in the United States. Despite wide recognition that the elementary grades represent the most important formative years for the development of cognitive skills, values, and attitudes, no major study of Catholic elementary schools has occurred since *Catholic Schools in Action* in 1966.

Most of the research on Catholic schools has involved high schools. The research from *High School and Beyond*, portions of Greeley's research, and all of the major studies sponsored by NCEA during the 1980's collected data about high schools. Data concerning Catholic elementary schools were part of the recent preliminary studies from NELS:88 (Hafner et al., 1990; Rock & Pollack, 1990) and the research on Catholic inner-city elementary schools, sponsored by the Catholic League for Civil Rights (Cibulka et al., 1982). However, these were not comprehensive studies of Catholic elementary education, and they included other types of schools, as well as Catholic schools.

A model for the study of Catholic elementary schools is the series of studies on Catholic high schools sponsored by NCEA and conducted by the Search Institute. *The Catholic High School: A National Portrait* (Yeager et al., 1985) provided an in-depth look at the modern Catholic high school. This study and its associated studies on low-income-serving Catholic high schools (Benson et al., 1986) and on the beliefs and values of high school teachers (Benson & Guerra, 1985) provided a rich database for researchers, policy makers, and practitioners. The Catholic educational community needs a similar database for Catholic elementary schools.

Religious Outcomes of Catholic Schools

A comprehensive study of the effects of Catholic schools on the religious knowledge, practice, and

values of their graduates is a second research priority that the leaders of Catholic education should embrace.

Catholic schools do more than simply teach academic subjects. As faith communities with formal programs of religious instruction, Catholic schools strive to develop in their students a deeper understanding of the Catholic faith, a commitment to full participation in the life of the church, and a set of values which will influence students' lives. These are the reasons that the Catholic community will continue to support Catholic schools and parents will continue to make sacrifices to send their children to these schools.

Research (Convey, 1990; O'Brien, 1987) shows that most of the Catholic community and the vast majority of bishops and priests believe Catholic schools are more important today than they were in the past. Catholic schools receive this endorsement from most respondents because of the religious and spiritual dimensions of the schools, not the academic dimension. However, a few bishops and a significant number of priests around the country have expressed concern about the Catholic identity of the schools, and some feel that going to a Catholic school doesn't seem to make a difference in the religious practice of many graduates.

Because the commitment to the religious formation of students is so essential to the very nature of Catholic schools, monitoring the effectiveness of the schools in this regard should receive the highest priority. A few of the questions that a national study could address are: How effectively do Catholic schools teach religion? Why do some schools have effective religious education programs and others do not? Do Catholics who attend Catholic schools grow more in their understanding of Catholic doctrine than do Catholics who attend other schools? How do Catholic schools help to develop the commitment of their students toward full participation in the life of the church? Do Catholic school graduates differ from Catholics who are graduates of other schools in the active practice of their faith? How important is the cooperation between the school and the home regarding the religious education of children? What is the school's contribution to the religious development of its students, over and above the contribution of the home?

Other Research Priorities

The other areas of research to which Catholic educators and researchers should give priority are studies concerning: (1) the school as community, (2) leadership, (3) values, (4) parental choice, (5) teachers, and (6) single-sex and coed schools.

School as Community

A recurrent theme in the research on effective schools is that good schools have a sense of community, which has a positive effect on the quality of life for both teachers and students. The church asks that Catholic schools create and nurture a vibrant faith community. Research (Benson et al., 1986; Benson & Guerra, 1985; Yeager et al., 1985) indicates that Catholic schools attempt to build and sustain a successful faith community through: (1) the presence of specific community-building structures; (2) a teaching staff whose members have a commitment to develop the faith community; and (3) the leadership of the principal in fostering the faith community of the school. However, more research is needed concerning what specific activities are effective in promoting the school as community, particularly as a faith community, and how this community contributes to the academic, religious, and social development of the students.

Coleman has hypothesized that part of the effectiveness of Catholic schools is explained by the functional community that resides in and surrounds the schools, and by the efficacious social capital produced by that community. Coleman's hypothesis concerning the importance of the functional community and social capital should be tested empirically. To what extent is a functional community present in a Catholic school, how extensive is that community within the school and outside the school, and how does the functional community influence the daily life of the school? In what ways does the functional community generate social capital and what are the effects of social capital on student outcomes? The study of these questions presents researchers with the challenging problems of developing both operational definitions of functional community and social capital, and appropriate scales to measure each construct.

Leadership

The research on effective schools emphasizes the importance of the principal as the instructional leader of the school (Purkey & Smith, 1985). Other research shows that the principal's leadership has a positive influence on teachers' sense of efficacy (Lee et al., 1991). Effective Catholic schools, however, must have principals who also exercise strong leadership in the creation of the faith community of the school.

Continuing research, analogous to Helm's (1990) study concerning the leadership role of Catholic school principals, is needed. The results of this research on leadership have practical implications for the hiring and training of Catholic school principals. Further, research on the leadership of the principal in a Catholic school will be increasingly more important in the 1990's as the schools strive to offer a quality academic and religious education in the face of increasing costs and a diminishing presence of administrators and faculty members from religious communities.

Some of the relevant research questions concerning the leadership of the principal are: How does the principal of a Catholic school facilitate the establishment and maintenance of the faith community of the school? How do effective principals deal with the faculty, students, and parents? What are the characteristics of principals who are recognized as effective leaders? Why are some principals effective leaders and others are not? How does the training of principals influence their style of leadership?

Another area of research on leadership concerns the development of student leaders. One goal of Catholic schools is to produce leaders for the church and for the community. What do Catholic schools do to nurture the leadership potential of their students, to encourage their involvement in their parishes and in their communities, and to foster vocations? Research (Convey, 1983) from *High School and Beyond* indicates that Catholic school students often place a higher value on community leadership as a life goal than do public school students; however, the research also shows that leadership generally receives a low priority from students. What do Catholic schools do to foster leadership in students while the students are still in school and to prepare them for future leadership roles? Are leadership skills and academic skills related? What are the qualities of a good student leader?

Values

Studies are needed concerning: (1) the relationship between Catholic schools and the home in the development of values; (2) the types of values Catholic schools are most successful in developing; and (3) how the development of values occurs in the schools.

The school's contribution to the development of a student's values, over and above the influence of the student's home, is still largely unresolved. Catholic schools generally complement the values that are promoted in the home. Students from homes with value systems that are congruent with the values of the schools are likely to benefit most from Catholic schools. However, Catholic schools seemingly are able to overcome and compensate for the disadvantaged backgrounds of some students who do not receive enough support in their homes. More research is needed on the relationship between the school and the home in the formation of values.

Are schools more successful in facilitating the development of one type of values over another? What is the relationship between social values, religious/moral values, family values, and academic values? Studies also are needed to explore why students do not give higher priority to certain issues involving social justice, such as working to correct social and economic inequalities (Convey, 1984; Guerra et al., 1990), despite Catholic schools placing a great deal of emphasis on social justice values (Yeager et al., 1985).

The role of the teacher in value development is widely recognized. Teachers are role models who, intentionally or not, communicate values. What are the mechanisms within the school community to assist in the development of student values and how effective are these mechanisms? What specific things do teachers do to help in the development of student values? How much emphasis does the school place on the teaching of values? Is more or less emphasis paid to values in high school than in elementary school? How are values integrated into the entire curriculum? Do some teachers "leave the teaching of values" to others? What is the relationship between the teachers' emphases on values and the strength of the functional community in Catholic schools?

Parental Choice

A considerable amount of research already exists concerning why parents choose Catholic schools. As noted earlier, the research suggests that parents send their children to Catholic schools for a variety of reasons, which include the school's academic program, Catholic tradition, religious education, emphasis on values, caring atmosphere, and discipline. For some parents, the perceived quality of the academic program of a particular Catholic school is sufficient reason to send their children to the school; however, most parents want more from the school than just a good academic program. On the other hand, very few parents will send their children to a school that they feel is not going to provide a good academic education.

Very little is known, however, as to how parents obtain and use information about a Catholic school to help them decide whether to enroll their children in that school. Some parents have first-hand information about the school from an older child already enrolled there, or they learn what they can about the school from a friend or neighbor or from personal visits. Other parents may act with incomplete information. A fascinating area of potential research, as yet completely untapped, is the extent to which parents use the representativeness and availability heuristics (Tversky & Kahneman, 1974) in making decisions about Catholic schools, what evidence the parents use in forming these heuristics, and whether parents attempt to verify any of this evidence. This area of research would have considerable consequences on how Catholic schools are marketed and portrayed to the public.

Yet another area of research concerns why Catholic parents who can afford to send their children to Catholic schools decide not to do so. To what extent is the lack of a conveniently-located Catholic school, the unavailability issue long championed by Greeley, a factor for many parents?

Do parents no longer value Catholic schools? If not, is it because parents have become increasingly secular and don't see the value of the religious aspect of Catholic schools? Or, do parents see a greater value in having their children attend public schools? Is it because parents lack courage or conviction, or are simply unwilling to change their financial priorities, despite having sufficient resources to afford Catholic schools? Again, the results of this research would be extremely helpful to those responsible for public relations and the marketing of Catholic schools.

Teachers

The presence of committed teachers in a school leads to a strong sense of community in the school. Research (Chubb & Moe, 1988; Salganik & Karweit, 1982) shows that teacher commitment is strongly related to value consensus and collegiality, each essential elements of community.

Catholic schools are fortunate to have many dedicated and committed teachers who work for far less compensation than they would receive if they taught in public schools. In addition to demonstrating commitment to students, teaching, and the school, Catholic school teachers often exhibit commitment to the mission of Catholic education. Research (Ciriello, 1988) shows the commitment to mission is precisely the major reason why many teachers choose to work in Catholic schools.

Additional studies are needed to understand more fully the commitment of Catholic school teachers and its relationship to their satisfaction, efficacy, and sense of ministry. How does the commitment of lay teachers compare with the commitment of teachers from religious communities? Why do individuals decide to teach in Catholic schools, why do they remain teaching in these schools, and how satisfied are they? Clearly, the adult members of the community set the tone for the entire community. Do Catholic school teachers fully understand their role in developing the faith community of the school? Do the teachers perceive their teaching as ministry?

Single-Sex and Coed Schools

Research (Lee & Bryk, 1986; Lee & Marks, 1990; Riordan, 1990; Schneider & Coutts, 1982) shows that single-sex Catholic high schools seem to have specific advantages over coed Catholic high schools in the areas of academic achievement, educational aspirations, attitudes and behaviors related to academics, and stereotypes concerning sex roles. The advantages of single-sex schools are particularly notable for minority students, and overall for girls more than for boys.

While some studies have controlled for family and personal background variables, courses taken by students, and the social composition of the school, a number of issues are largely unresolved. Is the apparent effectiveness of single-sex schools due to the fact that they enroll students of one sex, or do other factors explain some of the differences between these schools and coed schools?

Why do females seem to benefit from single-sex education more than males do? Single-sex Catholic schools are more likely than coed Catholic schools to be highly academic and quite selective. Studies have found that boys' Catholic schools tend to have the highest average socioeconomic status, compared to other types of Catholic schools, raising the possibility that boys' schools are more selective than girls' schools. Have previous studies adequately controlled for the selectivity of single-sex schools? Is it possible that, in the case of boys' schools, the controls applied have resulted in an overadjustment, and hence an underestimate, of the outcome effects?

Studies are needed that compare the cultures of single-sex Catholic schools and coed Catholic schools. Do single-sex schools emphasize academics more than coed schools? Why does the separation of academic concerns from social concerns in single-sex schools seem to result in more favorable outcomes for girls than for boys? Why do single-sex schools seem to place a higher emphasis on discipline and order than do coed schools? Do girls in single-sex schools have better role models than do girls in coed schools? Research indicates that girls' schools seem to enjoy a higher sense of community than other types of schools. Is that because girls' schools tend to be smaller than other Catholic schools, or are there other factors at work here?

Finally, what is the influence of the sponsorship by a religious community on a single-sex school? In what ways do single-sex schools that are owned and operated by a religious community differ in their academic and spiritual cultures from parish or diocesan single-sex schools?

PLANNING FOR THE FUTURE OF CATHOLIC SCHOOLS

During the past 25 years, the research on Catholic schools has assisted the Catholic educational community to deepen its understanding about Catholic schools and their effects. This book has identified some of the major studies on Catholic schools and has presented some of their principal findings. While the number of studies on Catholic schools has increased dramatically in recent years, even more studies are needed to understand Catholic schools more fully and to keep abreast of changes.

This chapter identifies specific priorities for future research on Catholic schools. Three priorities concern changes in the methodology of studies; implementation of these changes would improve the quality of research on Catholic schools. Other priorities are for studies that focus on the uniqueness of Catholic schools and their effects. These studies will result in a better understanding of what makes Catholic schools different from other schools, why the schools deserve the support of the church and of parents, and what differences the schools make in the lives of their students and their roles as future Catholic leaders. Two of these studies are proposed as national research priorities: the comprehensive study of Catholic elementary schools and the study of the impact of Catholic schools on the religious knowledge, beliefs, practices, and attitudes of their students and their graduates.

At the same time, studies must continue to explore the academic effectiveness of Catholic schools. The results of these studies will permit Catholic educators to monitor the academic quality of the schools and to further their understanding of the factors that contribute to the excellence of the schools. In addition, the public dissemination of results of these studies will greatly assist the public relations and marketing efforts of individual schools.

One final word. The research discussed in this book provides evidence concerning the nature of Catholic schools and the effectiveness of their programs. However, two other types of studies, each a type of institutional research, are needed to ensure the continued excellence of Catholic schools. The first is the monitoring of the entire school program by the school itself, through participation in diocesan and regional accreditation programs. The self-study activities that are part of most accreditation programs enable a school to identify aspects of its program that require improvement. The external review by a visiting team of educators, both immediately following the self study and periodically thereafter, and the accreditation decision provide motivation for the school to improve areas that are found deficient.

The second type of study is the long-range, strategic planning by a diocese for the future of its Catholic schools. Diocesan strategic planning efforts should result in the development of policies concerning finances, governance, curriculum, marketing and public relations, and development programs for the schools, as well as a coordinated plan for the future placement of the schools in the diocese. By careful planning, a diocese can help provide for the continuation of its Catholic schools and their future excellence.

NOTES

CHAPTER 1

1. The size of the effects, usually referred to as the "effect size," is defined as the actual difference in the average performance of the groups divided by the standard deviation of the performance. Using Cohen's (1988) criteria for comparing the average performances of two groups (for example, Catholic schools versus public schools), .25 is a small effect, .50 is a medium effect, and .75 is a large effect. See Cohen for his characterization of the size of the effect in other situations.

CHAPTER 2

1. Parental religiousness was measured by whether both parents were Catholic, whether both attended Mass every Sunday, and whether at least one of them received the Eucharist each week.

2. Greeley and Rossi (1966) found the correlation between racial attitudes and years of Catholic school attendance existed only for those who had attended college. Greeley, McCready, and McCourt reported that this correlation had increased to .22 for those who attended college and a small correlation also was found ($r=.07$) for the entire Catholic population.

3. Bryk and Raudenbush (1989) confirmed the common school hypothesis of Coleman and his associates, using a sophisticated two-stage, multilevel model on the longitudinal data from *High School and Beyond*.

4. Tracking often is a reflection of differences in student ability. Catholic schools traditionally have enrolled many academically-talented students, so the finding that proportionately more students were in academic tracks in Catholic schools than in public schools was not unexpected. However, in accordance with their philosophy, Catholic schools do place high demands on all students, even the less talented, and many students are placed in academic tracks to challenge them or because the school offers no alternative. Students with similar characteristics who attend public school are likely to be tracked differently, which in turn could affect their performance. Thus, the use of the tracking variable by Coleman and his colleagues as part of the explanation for differences between Catholic schools and public schools, rather than as a control for individual differences, is not without support.

5. Benson and his colleagues relied on the estimates provided by principals regarding the percentage of students from families with incomes below \$10,000.

6. Patricia Bauch, O.P., Irene Blum, Nancy Taylor, and Linda Valli of the Department of Education at The Catholic University of America visited schools and wrote the field reports that formed the basis of Chapter 2 of the study.

7. Benson, Yeager, Wood, Guerra, and Manno (1986, pp. 192-193) reported that 45 percent of students in low-income-serving schools were minority, compared with 18 percent of students in all Catholic high schools. A disproportionate number of Hispanic students (57 percent) were very poor; only 20 percent came from non-poor families. In contrast, less than a third of black students in low-income-serving schools were from very poor families, and 34 percent were from non-poor families. Furthermore, 61 percent of black students in low-income-serving schools were not

Catholic.

8. Seniors in both Catholic and public schools reported a moderate use of alcohol. The average scores on a scale of 1 (lowest) to 7 (highest) were 4.83 for Catholic seniors in Catholic schools and 4.60 for Catholic seniors in public schools.

9. Catholic seniors reported a very low use of cocaine. The average scores on a scale of 1 (lowest) to 7 (highest) for cocaine were 1.26 for Catholic school students and 1.36 for public school students. The averages for marijuana use were higher: 2.37 for those from Catholic schools and 2.50 for those from public schools. The differences between seniors from Catholic schools and public schools were significant for cocaine use, but not for marijuana use.

10. The authors used multiple regression to examine the relative importance of the personal and family background variables, plus the importance of religion and school type, in predicting each of the outcomes. The significance of a particular predictor was a function not only of its relationship with the criterion variable, but also of its relationship with the other predictors in the model. Thus, the importance of a predictor was always examined by controlling its influence for the presence of the other predictors in the model.

CHAPTER 3

1. The NCEA Data Bank is generally acknowledged to have the most accurate statistics on Catholic schools. The National Center for Education Statistics and the Bureau of the Census collect data on all schools in the country, including Catholic schools; however, estimates of the number of schools and enrollments by these agencies often differ somewhat due to the methodology employed by each agency (Williams, 1986).

2. One notable consequence of this wish of the bishops was the establishment of The Catholic University of America in 1887.

3. The historic high enrollment for elementary schools was approximately 4,546,000 students in 1963, and the historic high enrollment for secondary schools was approximately 1,093,000 students in 1966 (Brigham, 1989).

4. Approximately 200 new Catholic schools opened between 1966 and 1989, about a third before 1970 and about a third after 1980. The states with the largest number of these newly-opened schools were California (29), Louisiana (21), Florida (18), Missouri (15), New York (13), Pennsylvania (11), and Texas (11).

5. Some of the decrease in the relative proportion of parish elementary schools reflected (1) the higher likelihood since 1965 of closings of parish elementary schools, compared with closings of interparish and diocesan elementary schools, and (2) changes in sponsorship, when schools formerly sponsored by a single parish were subsequently sponsored by more than one parish.

6. As a direct result of a declining birth rate, the enrollment of public elementary schools peaked in 1969 and the enrollment of public secondary schools peaked in 1975 (Kaufman, 1986).

7. The increase in the number of births during the late 1970's and 1980's, along with the establishment of pre-school programs in many Catholic schools, resulted in nearly a three-fold increase in the pre-school enrollment of Catholic schools from 1982 (31,381) to 1989 (90,023) (Brigham, 1990, p. 14).

8. In 1980, the schools in the New England, Mideast, and Great Lakes NCEA regions accounted for almost two-thirds of the total enrollment of Catholic schools in the United States (Brigham, 1989, p. 14).

9. Greeley and Rossi (1966) reported that 54 percent of the adults in their sample had at least some of their primary education in Catholic elementary schools, and 28 percent of those who had attended high school indicated they had attended a Catholic high school.

10. According to Greeley (1977), 11 percentage points of the 15 percent decline, or 73 percent of the decline, were concentrated in suburban areas. Nine of these 11 percentage points, or 82 percent, were due to the lack of Catholic schools in the suburbs.

11. From the results of the 1984 Gallup Poll, Harris (1989, p. 24) estimated that 66,821,000 Americans called themselves Catholic and 53,457,000 Catholic Americans were registered in their parishes. The Kenedy census count for 1984 was 52,286,000 Catholics.

12. Harris showed that the potential Catholic elementary population decreased from 1979 to 1985 and, because of the increase in the nation's birth rate in the late 1970's, increased slightly from 1985 to 1987. However, the increase between 1985 and 1987 represented fewer than 70,000 children, while the decrease from 1979 to 1985 was about 375,000 children (Harris, 1989, pp. 26-28).

13. The regions used by the National Catholic Educational Association are: **New England** (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont); **Mideast** (Delaware, District of Columbia, Maryland, New Jersey, New York, and Pennsylvania); **Great Lakes** (Illinois, Indiana, Michigan, Ohio, and Wisconsin); **Plains** (Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota); **Southeast** (Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia); and **West/Far West** (Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oklahoma, Oregon, Texas, Utah, Washington, and Wyoming).

14. The publication in the 1950's of John Tracy Ellis' *American Catholics and the Intellectual Life* and Thomas F. O'Dea's *American Catholic Dilemma* provoked discussion on whether Catholic schools were adequately fulfilling their educational roles, and whether they were making a contribution to the intellectual life of the church.

15. In 1950, about 4700 lay persons taught in Catholic elementary schools and about 4600 in Catholic secondary schools. By 1960, the lay faculties of elementary had swelled to 29,000 and the lay faculties of secondary schools to almost 11,000 (Brigham, 1989, p. 24).

16. The total enrollment of the schools in these two regions constituted 56 percent of the enrollment of Catholic schools in 1989 (Brigham, 1990).

17. Benson et al. (1986) reported that, in low-income-serving Catholic high schools, 62 percent of the black students, 10 percent of the Hispanic students, and 8 percent of the white students were not Catholic. In the private elementary schools studied by Cibulka et al. (1982), 53 percent of the black students, 2 percent of the Hispanic students, and 6 percent of the white students were not Catholic.

18. The categories used by NCEA for recording minority enrollment are American Indian, Asian, black or African American, and Hispanic.

19. Data are summarized in the article on the Asian Population Boom, *Education Week*, March 14, 1990. The Bureau of the Census report is "United States Population Estimates, by Age, Sex, Race, and Hispanic Origin: 1980 to 1988."

20. The 10 largest urban dioceses in 1983-84 were Chicago, Philadelphia, New York, Los Angeles, Brooklyn, Detroit, Cleveland, Newark, Boston, and St. Louis. Boston had the fewest number of black students.

21. Kraushaar (1972) reported that over 5 percent of Catholic school families were below the federal poverty level, a higher percentage than from other private schools. Approximately half the families in the inner-city elementary schools studied by Cibulka et al. (1982) had 1978 incomes under \$10,000, compared with about 27 percent of families nationally. Yeager et al. (1985) estimated that about 6 percent of families in Catholic high schools had 1982 incomes under \$10,000, compared to 11 percent of families nationally.

22. The figure of \$924 reported by Kealey probably represents the average tuition for the first or only child from a family, and does not seem to reflect tuition discounts that many parochial

schools provide for second and succeeding children. If these tuition discounts were taken into account, the average tuition would be lower than \$924.

23. White and Hispanic families with incomes less than \$25,000 were twice as likely as black families to have children enrolled in a private school. At incomes over \$25,000, the likelihood of white and Hispanic families to enroll children in private schools, while still higher than that of black families, gradually decreased to about one and three-tenths times more likely (Williams, 1986).

24. The income data in Table 3-10 are weighted estimates, provided by the National Center for Education Statistics, based on parent questionnaires. The income data reported by Coleman et al. (1982) and Greeley (1982) were based on self-reports by sophomores and seniors. It is likely that the students underestimated the income of the family and that the estimates in Table 3-10 are more appropriate, albeit limited just to the sophomore data.

25. This increase in the percentage who attended Catholic schools at the highest income level could be explained partly by the observation of Bryk et al. (1984, p. 78) that Catholic high school students who attended public elementary schools had higher average family incomes (\$28,173) than those who attended Catholic elementary schools (\$24,783).

26. Williams' (1986) data were estimates from the 1985 October School Enrollment Supplement to the Current Population Survey, Bureau of the Census. The parent was defined as the "householder" or "reference person." Williams indicated that, in most cases, this individual was the child's parent. The actual estimates of attainment of at least a bachelor's degree were 56 percent for nonchurch-related private school parents, 30 percent for church-related private school parents, and 18 percent for public school parents.

27. Greeley and his colleagues (1976, p. 223) reported that approximately 37 percent of Catholic parents with children in Catholic schools had at least some college education. Thirty-seven percent of the parents in Cibulka's (1982) study had some college education and 15 percent of the parents had completed a college degree.

28. The percentages reported were computed from the data provided by Greeley and Rossi (1966, p. 45).

29. The percentages reported were computed from the data provided by Greeley et al. (1976, p. 223).

30. The two indicators are conditional probabilities. The first indicator is Prob(child attends | parent attended) and the second indicator is Prob(parent attended | child attends). These two probabilities are related by Bayes Theorem and are only equal when Prob(child attends) = Prob(parent attended). The general decline in enrollment between 1966 and 1990 resulted in Prob(child attends) being considerably less than Prob(parent attended), so Bayes Theorem indicates that Prob(child attends | parent attended) generally will be much smaller than Prob(parent attended | child attends).

31. The estimates of the percentage of parents of Catholic school children who went to Catholic schools themselves from Greeley and Rossi (1966) and Greeley, McCready, and McCourt (1976) are higher than estimates obtained at a single point in time, like those of Neuwen (1966) and Kraushaar (1972), since the latter estimates, by definition, do not include parents of children formerly enrolled in Catholic schools nor those parents of children who later attend Catholic schools.

CHAPTER 4

1. The parochial school students in Lennon's (1948) study scored about a half grade equivalent below the public school students in science.

2. These last two findings reported by Morton are related. A common characteristic of tests that are given over a wide range of grade levels is that the distribution of student scores increases in variability as the grade level increases. As a result, students at higher percentile levels who maintain their percentile standing in a later grade will show greater changes in their scores than will students at lower percentile levels who also maintain their percentile standing.

3. In the reports concerning the 1983-84 assessment, Catholic school averages are compared to the national average, which is the average of all students who participated in NAEP, including those in Catholic schools. The average of students in public schools would be slightly lower than the national average, a factor borne out in subsequent NAEP assessments that reported separate means for public schools.

4. Table 4-2 shows the comparison of Catholic school students with national norms. The differences between Catholic school students and public school students would be somewhat larger than those indicated in Table 4-2.

5. In addition to the absence of longitudinal data in NAEP, which seriously limited the inferences that were possible, Lee apparently had no ability to introduce statistical controls since she was presented with already-analyzed data.

6. The social studies test in NELS:88 consisted of a combination of history, citizenship, and geography.

7. The test performance of students from Catholic schools was about the same as that of students from other private high schools and lower than that of students from high-performing public and private high schools. The high-performing high schools were identified according to the percentage of students in them who scored high on these tests. Coleman and his associates did not analyze the test performance of high-performing Catholic high schools.

8. The tests for sophomores and seniors were different; however, the mathematics, reading, and vocabulary tests had some items in common. The senior tests were the same as those given in the *National Longitudinal Study of 1972*. The sophomore tests given in 1980 were repeated in 1982 in the longitudinal follow-up. The percentages reported were calculated from the data provided in Tables 6-1 and 6-2 of Coleman, Hoffer, and Kilgore (1982, p. 125).

9. The percentages reported are based on a composite index used by Greeley (1982, p. 42). The differences in standard deviation units between the performance of non-Hispanic white students and black students ranged from .36 in civics to .89 in science for Catholic schools and from .60 in math to 1.08 in science for public schools. The corresponding differences between non-Hispanic white students and Hispanic students ranged from .31 in math to .50 in science for Catholic schools and from .44 in math to .81 in science for public schools. Recall that, according to Cohen (1988), .25 standard deviation units is a small effect, .50 is a medium effect, and .75 is a large effect.

10. When the tests are scored using item response theory, which provides a sample-invariant estimate of achievement, as opposed to the sample-dependent estimate in traditional scoring, the percent increase in the gain from the sophomore to the senior year for Catholic schools, compared with public schools, was similar to the percent increase in the raw score gains for vocabulary, reading, and mathematics, greater than the percent increase in the raw score gains for science, and reduced to zero for writing (Rock et al., 1986, pp. 172, 175, 177, 180, 182).

11. The estimates of the proportion dropping out do not include subsequent dropouts who were not included in the 1982 follow-up because they were held back or had dropped out prior to the administration of the survey during the base year. Ogle (1990) reported that 17.3 percent of the sophomore class of 1980 did not complete high school by June 1982. However, the non-

completion rate of this class had dropped to 12.1 percent by June 1984, and to 9.3 percent by the Spring of 1986.

12. For Catholics with more than 10 years of their education in Catholic schools, Greeley et al. (1976, p. 162) reported a decline from 91 percent in 1963 to 65 percent in 1974 in Mass attendance, from 54 percent to 20 percent for monthly Confession, and from 81 percent to 62 percent for daily prayer. Compared with Catholics with fewer or no years in Catholic schools, the absolute difference in the decline in Mass attendance, 26 percent, was similar; however, the relative decline of 29 percent $[(91 \text{ percent} - 65 \text{ percent})/91 \text{ percent}]$ was less than the relative decline of Catholics with some education in Catholic schools (43 percent) and those with no education in Catholic schools (42 percent).

13. Recent research by Greeley (1989, p. 260), with data from a 1988 NORC survey, continued to show the benefits of attending Catholic schools on religious practice. Catholics who attended Catholic schools for more than eight years were half as likely as other Catholics to have drifted away from the church (10 percent versus 20 percent).

14. Fifty-five percent is probably an underestimate of weekly Mass attendance of the Catholic students in low-income-serving Catholic schools, since Benson and his associates apparently used data from all the students in these schools, including the 22 percent who were not Catholics, to calculate the percentage of students who attended Mass weekly.

15. REOI and REKAP are NCEA inventories that measure the religious knowledge and attitudes of young people in school-based and parish-based religious education programs. REOI, designed for junior high school students, consists of 100 items concerning religious knowledge and 40 items concerning attitudes. REKAP, designed for senior high school students, consists of 60 items on religious knowledge, 30 items on beliefs and attitudes, and 20 items on religious practice. Ten themes constitute the domains of these inventories: God, Jesus Christ, church, grace, sacraments, conscience and moral principles, sexuality, social justice, prayer and spirituality, and Christian eschatology. Nationwide administrations of REOI and REKAP began in 1976 and 1979, respectively.

16. According to Neuwien (1966), "moralistic" responses had an emotional connotation and "nominalistic" responses were rationalistic and logically sounding. Neither response was of itself incorrect; however, they were not in keeping with the catechetical emphasis of the time.

17. In 1974, the difference in the average standard scores for doctrinal orthodoxy of Catholics with 10 years or more of Catholic education and other groups of Catholics was approximately .15 standard deviation units. In 1963, the difference was approximately .30 standard deviation units, when compared with most of the other groups and approximately .50 standard deviation units, when compared with Catholics with no formal religious instruction. In addition, the correlation between the number of years of Catholic education and doctrinal orthodoxy declined slightly from .18 in 1963 to .10 in 1974 (Greeley et al., 1976, p. 164, 212).

18. The item on papal primacy was, "Jesus directly handed over the leadership of His Church to Peter and his successors." The term *directly* may have confused some students.

19. In the school-level analyses, alterable school variables explained 27 percent of the variance of faith commitment and 13 percent of the variance of church commitment. Student characteristics explained 22 percent and 23 percent, respectively, and fixed school characteristics explained 19 percent and 17 percent, respectively, of the variance of faith commitment and church commitment (Benson et al., 1986, p. 172).

20. In the student-level analysis, family background explained 19 percent and 17 percent, respectively, of the variance of faith commitment and church commitment, whereas the climate variables of student morale, emphasis on academics, and emphasis on religion together explained 16 percent and 14 percent of the variance of the two types of commitment (Benson et al., 1986, p. 178).

21. *The Catholic School*, Sacred Congregation for Catholic Education, March, 1977.

22. A step-by-step program for helping a school to infuse values into all areas of the curriculum is described in Reck, C. (Ed.), *Vision and Values*, Washington, D.C.: National Catholic Educational Association, 1980. Also, for an excellent resource book on how values can be incorporated into the Catholic school curriculum, see Welch, M. L., *A Beginning: Resource Book for Incorporating Values and Church Teachings into the Catholic School Curriculum*, Washington, D.C.: National Catholic Educational Association, 1990.

23. Ten percent of Catholic graduates from Catholic schools, compared with 6.7 percent of Catholic graduates from public schools, rated being a community leader as very important. These results were obtained in analyses of the second follow-up of the 1980 sophomore cohort in *High School and Beyond*.

24. Convey (1983, 1984) reported that, in the base year of *High School and Beyond*, correcting social and economic inequalities was not accorded a high priority by many students. Only about 14 percent of the entire *High School and Beyond* sample indicated that correcting inequalities was very important, whereas more than a third reported that correcting inequalities was not important.

25. Thompson's (1982) finding of a very low rate of participation in service projects by Catholic school students was based on data collected just prior to an increase in emphasis on the teachings of social justice in Catholic high schools (Yeager et al., 1985).

26. Teachers of certain subjects, like religion, social studies, and English would be more likely to deal specifically with issues involving social justice, so it is not unexpected that the percentage of teachers who considered social justice issues important and who frequently talked about these issues in their classes was not higher than the numbers reported. The research showed that religious teachers were more likely than Catholic lay teachers, who, in turn, were more likely than non-Catholic teachers, to indicate the importance of these issues (Benson & Guerra, 1985; Benson et al., 1986).

CHAPTER 5

1. The nine enabling characteristics are: (1) school-site management; (2) leadership; (3) staff stability; (4) curriculum articulation and organization; (5) staff development; (6) parental involvement and support; (7) school-wide recognition of academic success; (8) maximized learning time; and (9) district or central office support (Purkey & Smith, 1985).

2. Salganik and Karweit (1982) hypothesized that the major difference between the environments of public and private schools resulted from differences in the commitment of the respective school communities.

3. In *The Catholic High School: A National Portrait* (Yeager et al., 1985), the principals of the high schools reported that 10 percent of their students were in general programs and 10 percent were in vocational programs.

4. In a 1990 survey of high school teachers in the Archdiocese of Boston, 81 percent of the teachers agreed (20 percent strongly agreed) that a strong Christian community existed in their schools and 89 percent of them were satisfied (26 percent were very satisfied) with the community among faculty and students in their schools.

CHAPTER 6

1. *Gravissimum Educationis*, 8, 1965.

2. According to the National Center for Education Statistics, 85 percent of all public school teachers in 1961 had a bachelor's degree and 23.5 percent had at least a master's degree (Snyder,

1989).

3. In 1986, virtually all (99.7 percent) public school teachers possessed at least a bachelor's degree and over half (51.4 percent) had earned a graduate degree (Snyder, 1989).

4. During the 1960's and early 1970's, the number of college graduates with majors in education increased dramatically. In 1973, the nation's colleges and universities awarded twice as many bachelor's degrees and three times as many master's degrees in education than in 1962 (Snyder, 1989).

CHAPTER 7

1. Revised Code of Canon Law, Canon 774.

2. *Familiaris Consortio*, n. 36.

3. Second Vatican Council's Declaration on Christian Education, *Gravissimum Educationis*, #8.

4. A number of states permit the interdistrict transfer of public school students to the public school of their choice. In 1987, Minnesota required school districts to allow families to transfer their children to schools in other districts. In 1989, four other states enacted similar legislation: Arkansas, Iowa, Nebraska, and Ohio. By 1990, other states had other, more limited, forms of choice programs, including Arizona, California, Colorado, Massachusetts, Missouri, Wisconsin, and Washington.

5. Greeley et al. (1976, p. 238) attributed different percentages to the 1963 NORC data used by Greeley and Rossi. According to Greeley et al., 49 percent of the adults named religious instruction as an advantage of Catholic schools, 31 percent named better discipline, and 25 percent named better education.

6. This report described parental reasons in the Archdiocese of St. Louis; however, the report also included summaries of studies from Chicago, Dubuque, Pittsburgh, and Spokane in which Catholic school parents selected academic reasons as most important in their decision to send their children to Catholic schools.

7. Although local circumstances vary, the research (Convey, 1986a; Greeley & Rossi, 1966) has shown that most parents who selected a Catholic school for their children were not fleeing from the public schools; rather the parents were seeking something qualitatively different from the public school, that is, the Catholic school's religious orientation.

8. Coleman and Hoffer (1987, p. 34) reported slightly lower percentages for these activities for the 1982 seniors. Coleman and Hoffer used the data from all the 1982 seniors in *High School and Beyond*, while Rock et al. reported the data only for those seniors who remained in school from 1980 to 1982.

CHAPTER 8

1. The *National Longitudinal Study of the High School Class of 1972* was the first major collection of longitudinal data sponsored by the National Center for Education Statistics. Data were collected from 22,652 seniors in 1318 private and public schools. The students completed an extensive questionnaire and battery of tests. Longitudinal follow-up data were gathered in 1973, 1974, 1976, 1979, and 1986.

2. This result differed from Lee and Bryk's (1986) finding of a slightly higher difference for boys than girls; however, Lee and Bryk's analysis measured aspirations of students still in high school, while Lee and Marks' data were from college students.

REFERENCES

- Abramowitz, S., & Stackhouse, E. A. (1980). *The private high school today*. Washington, DC: United States Government Printing Office.
- Alexander, K. L. (1987). Cross-sectional comparisons of public and private school effectiveness: A review of evidence and issues. In Haertel, E. H., James, T., & Levin, H. M. (Eds.) *Comparing public & private schools. Volume 2: School achievement*. New York: The Falmer Press.
- Alexander, K. L., & Pallas, A. M. (1983). Private schools and public policy: New evidence on cognitive achievement. *Sociology of Education*, 56, 170-182.
- Alexander, K. L., & Pallas, A. M. (1985). School sector and cognitive performance: When is a little a little? *Sociology of Education*, 58, 115-135.
- Anderson, C. S. (1982). The search for school climate: A review of the research. *Review of Educational Research*, 52, 368-420.
- Anderson, C. S. (1985). The investigation of school climate. In Austin, G. R., & Garber, H. (Eds.) *Research on exemplary schools*. New York: Academic Press.
- Arnez, N. L., & Jones-Wilson, F. C. (1988). A descriptive survey of black parents in the greater Washington, D.C., area who chose to send their children to nonpublic schools. In Slaughter, D. T., & Johnson, D. J. (Eds.) *Visible now: Blacks in private schools*. Westport, CT: Greenwood Press.
- Ascher, C. (1986). Black students and private schooling. *Urban Review*, 18, 137-145.
- Ashton, P. T., & Webb, R. B. (1986). *Making a difference: Teachers' sense of efficacy and student achievement*. New York: Longman.
- Austin, G. R., & Holowenzak, S. P. (1985). Ten years of research on exemplary schools. In Austin, G. R., & Garber, H. (Eds.) *Research on exemplary schools*. New York: Academic Press.
- Bauch, P. A. (1988a). Black family participation in Catholic secondary education. In Slaughter, D. T., & Johnson, D. J. (Eds.) *Visible now: Blacks in private schools*. Westport, CT: Greenwood Press.
- Bauch, P. A. (1988b). Is parent involvement different in private schools? *Educational Horizons*, 66, 78-82.
- Bauch, P. A. (1989). Can poor parents make wise educational choices? In Boyd, W. L., & Cibulka, J. G. (Eds.) *Private schools and public policy: International perspectives*. Philadelphia, PA: The Falmer Press.
- Bauch, P. A., Blum, I., Taylor, N., & Valli, L. (1985). *Themes and findings from a field study of five inner-city Catholic high schools*. A final report to the National Catholic Educational Association. Washington, DC: The Catholic University of America.
- Bauch, P. A., & Small, T. W. (1986). *Parents' reasons for school choice in four inner-city Catholic high schools: Their relationship to education, income, child aspirations, religion, and race*. Paper presented to the annual meeting of the American Educational Research Association, San Francisco, April, 1986.

- Bauernfeind, R. H., & Blumenfeld, W. S. (1963). A comparison of achievement scores of public-school and Catholic-school pupils. *Educational and Psychological Measurement*, 23, 331-336.
- Benson, P. L., & Guerra, M. J. (1985). *Sharing the faith: The beliefs and values of Catholic high school teachers*. Washington, DC: National Catholic Educational Association.
- Benson, P. L., & McMillen, M. M. (1991). *Private schools in the United States: A statistical profile, with comparisons to public schools*. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.
- Benson, P. L., Yeager, R. J., Wood, P. K., Guerra, M. J., & Manno, B. V. (1986). *Catholic high schools: Their impact on low-income students*. Washington, DC: National Catholic Educational Association.
- Berger, B. (1985). The fourth R: The repatriation of the school. In Bunzel, J. H. (Ed.) *Challenge to American schools*. New York: Oxford University Press.
- Bleggi, D. R. (1986). A study of parent choice and satisfaction in elementary private and public schools in rural Pennsylvania. (Doctoral dissertation, The Pennsylvania State University, 1984.) *Dissertation Abstracts International*, 46, 28A.
- Bleich, R. M. (1975a). Building educational communities of faith: From theory to practice. *Notre Dame Journal of Education*, 6, 248-249.
- Bleich, R. M. (1975b). Exploring the vision of the faith community. *Notre Dame Journal of Education*, 6, 250-252.
- Bleich, R. M. (1975c). Organizational strategies for the development of Christian educational communities. *Notre Dame Journal of Education*, 6, 256-263.
- Bohm, D. (1980). On insight and its significance for science, education and values. In Sloan, D. (Ed.) *Education and values*. New York: Teachers College Press.
- Bonnot, B. R. (1981). Study reveals youth concerns, religious sentiments. *Momentum*, 12(1), 24-25, 46-47.
- Bredeweg, F. H. (1982). United States Catholic elementary and secondary schools 1981-1982. In Mahar, M. (Ed.) *NCEA/Ganley's Catholic schools in America, 1982*. Montrose, CO: Fisher Publishing Co.
- Bredeweg, F. H. (1985). United States Catholic elementary and secondary schools 1984-85. In Mahar, M. (Ed.) *NCEA/Ganley's Catholic schools in America, 1985*. (13th edition.) Montrose, CO: Fisher Publishing Co.
- Bredeweg, F. H. (1988). *United States Catholic elementary schools & their finances 1988*. Washington, DC: National Catholic Educational Association.
- Bressler, M., & Westoff, C. (1963). Catholic education, American values, and achievement. *American Journal of Sociology*, 49, 225-233.
- Bridge, R. G., Mudd, C. M., and Mooch, P. R. (1979). *The determinants of educational outcomes: The impact of families, peers, teachers, and schools*. Cambridge, MA: Ballinger.

- Brigham, F. H. (1989). *United States Catholic elementary and secondary schools 1988-89: A statistical report on schools, enrollment, & staffing*. Washington, DC: National Catholic Educational Association.
- Brigham, F. H. (1990). *United States Catholic elementary and secondary schools 1989-90: Annual statistical report on schools, enrollment, and staffing*. Washington, DC: National Catholic Educational Association.
- Brookover, W. B., Beady, C., Flood, P., Schweitzer, J., & Wisenbaker, J. (1979). *School social systems and student achievement: Schools can make a difference*. New York: Praeger.
- Brown, W. E., & Greeley, A. M. (1970). *Can Catholic schools survive?* New York: Sheed and Ward.
- Bruner, J. S. (1960). *The process of education*. Cambridge, MA: Harvard University Press.
- Bryk, A. S., & Driscoll, M. E. (1988). *The high school as community: Contextual influences, and consequences for students and teachers*. Madison, WI: Wisconsin Center for Education Research.
- Bryk, A. S., & Holland, P. B. (1981). The implications of Greeley's latest research. *Momentum*, 12(3), 22-25.
- Bryk, A. S., Holland, P. B., Lee, V. E., & Carriedo, R. A. (1984). *Effective Catholic schools: An exploration*. Washington, DC: National Catholic Educational Association.
- Bryk, A. S., Holland, P. B., & Lee, V. E. (in press). *A vision of community: The contemporary Catholic high school*.
- Bryk, A. S., & Raudenbush, S. W. (1989). Toward a more appropriate conceptualization of research on school effects: A three-level hierarchical model. In Bock, R. D. (Ed.) *Multilevel analysis of educational data*. New York: Academic Press.
- Bryk, A. S., & Thum, Y. M. (1989). The effect of high school organization on dropping out: An exploratory investigation. *American Educational Research Journal*, 26, 353-383.
- Buetow, H. A. (1970). *Of singular benefit: The history of U. S. Catholic education*. New York: Macmillan.
- Buetow, H. A. (1971). The underprivileged and Roman Catholic education. *Journal of Negro Education*, 40, 373-389.
- Buetow, H. A. (1988). *The Catholic school: Its roots, identity, and future*. New York: The Crossroad Publishing Company.
- Carper, J. C., & Hunt, T. C. (1984). *Religious education in America*. Birmingham, AL: Religious Education Press.
- Carroll, C. D. (1984). *High School and Beyond tabulation: High school students' perceptions of their teachers*. Washington, DC: National Center for Education Statistics.
- Carroll, C. D. (1985). *High School and Beyond tabulation: Background characteristics of high school teachers*. (LSB-85-1-15.) Washington, DC: National Center for Education Statistics.

- Catterall, J. S. (1988). Private schools participation and public policy. In James, T., & Levin, H. M. (Eds.) *Comparing public & private schools. Volume 1: Institutions and organizations*. New York: The Falmer Press.
- Charron, R. M. (1981). Parental perceptions of the unique qualities of Catholic schools: An exploratory study, with implications for teacher formation. (Doctoral dissertation, Michigan State University, 1980.) *Dissertation Abstracts International*, 41, 2909A.
- Checchia, C. M. (1990). Characteristics of high schools, and parents of eighth-grade students in Catholic elementary schools, which influence high school selection. (Doctoral dissertation, New York University, 1989.) *Dissertation Abstracts International*, 50, 1149A.
- Chubb, J. E., & Moe, T. M. (1988). Politics, markets, and the organization of schools. *American Political Science Review*, 82, 1055-1087.
- Chubb, J. E., & Moe, T. M. (1990). *Politics, markets, and America's schools*. Washington, DC: Brookings Institute.
- Cibulka, J. G. (1988). Catholic school closings: Efficiency, responsiveness, and equality of access for blacks. In Slaughter, D. T., & Johnson, D. J. (Eds.) *Visible now: Blacks in private schools*. Westport, CT: Greenwood Press.
- Cibulka, J. G. (1989). Rationales for private schools: A commentary. In Boyd, W. L., & Cibulka, J. G. (Eds.) *Private schools and public policy: International perspectives*. Philadelphia, PA: The Falmer Press.
- Cibulka, J. G., O'Brien, T. J., & Zewe, D. (1982). *Inner-city private elementary schools*. Milwaukee: Marquette University Press.
- Ciriello, M. J. (1988). Teachers in Catholic schools: A study of commitment. (Doctoral dissertation, The Catholic University of America, 1987.) *Dissertation Abstracts International*, 48, 8514A.
- Ciriello, M. J. (1989). From the catbird seat. *Momentum*, 20(2), 18.
- Clark, R. M. (1983). *Family life and school achievement: Why poor black children succeed or fail*. Chicago: University of Chicago Press.
- Clark-Stewart, K. A. (1973). Interactions between mothers and their young children: Characteristics and consequences. *Monographs of the Society for Research in Child Development*, 38 (6-7 Serial No. 153).
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. (2nd Edition.) Hillsdale, NJ: Lawrence Erlbaum Associates.
- Colaco, L. (1982). Religious education program goals, school climate and religious knowledge levels in Catholic elementary schools. (Doctoral dissertation, Fordham University, 1981.) *Dissertation Abstracts International*, 42, 1080A.
- Coleman, J. S. (1961). *The adolescent society*. New York: Free Press of Glencoe.
- Coleman, J. S. (1981). Quality and equality in American education: Public and Catholic schools. *Phi Delta Kappan*, 62, 159-164.
- Coleman, J. S. (1985). Schools and the communities they serve. *Phi Delta Kappan*, 66, 527-532.

- Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94, Supplement, S95-S120.
- Coleman, J. S., Campbell, E. Q., Hobson, C. J., McPartland, J., Mood, A. M., Weinfeld, F. D., & York, R. L. (1966). *Equality of educational opportunity*. Washington, DC: Office of Education, U.S. Department of Health, Education, and Welfare.
- Coleman, J. S., Hoffer, T., & Kilgore, S. (1981). *Public and private schools*. Final report to the National Center for Education Statistics, Contract No. 300-78-0208. Chicago: National Opinion Research Center.
- Coleman, J. S., Hoffer, T., & Kilgore, S. (1982). *High school achievement: Public, Catholic, & private schools compared*. New York: Basic Books.
- Coleman, J. S., & Hoffer, T. (1987). *Public and private high schools: The impact of communities*. New York: Basic Books.
- Condon, H. C. (1984). *High School and Beyond tabulation: Type of schools attended by 1980 high school sophomores from grades 1-12*. Washington, DC: National Center for Education Statistics.
- Conley, W. H. (1966). Catholic Schools in Action — A critique. *The Catholic School Journal*, 66(9), 27-30.
- Convey, J. J. (1982, April). *The impact of personal and family variables on the achievement of Catholic high school students: Some evidence from the Coleman data*. Paper presented to the annual meeting of the National Catholic Educational Association, Chicago.
- Convey, J. J. (1983, April). *Religious practice and value orientation of Catholic adolescents*. Paper presented to the annual meeting of the National Catholic Educational Association, Washington.
- Convey, J. J. (1984). Encouraging findings about students' religious values. *Momentum*, 15(2), 47-49.
- Convey, J. J. (1986a, April). *Parental choice of Catholic schools as a function of religion, race, & family income*. Paper presented to the annual meeting of the American Educational Research Association, San Francisco.
- Convey, J. J. (1986b). *Toward the end of the century: A planning study for the elementary schools of the Archdiocese of Washington, 1985-2000*. Washington, DC: The Catholic University of America.
- Convey, J. J. (1987). Implications of the functional community for Catholic school parents. *Momentum*, 18(4), 14-15.
- Convey, J. J. (1989a). Catholic Schools, Research on. In Marthaler, B. (Ed.) *The New Catholic Encyclopedia*, 18, 73-78. Palatine, IL: Jack Heraty & Associates.
- Convey, J. J. (1989b). *Mission 2000: A planning study for the schools of the Diocese of Corpus Christi*. Washington, DC: The Catholic University of America.
- Convey, J. J. (1990). *Archdiocese of Boston planning study: Results of parent surveys*. Washington, DC: The Catholic University of America.
- Coons, J., & Sugarman, S. (1978). *Education by choice: The case for family control*. Berkeley, CA: University of California Press.

- Cooper, B. S. (1984). The changing demography of private schools: Trends and implications. *Education and Urban Society*, 16, 429-442.
- Cooper, B. S. (1988). The changing universe of U.S. private schools. In James, T., & Levin, H. M. (Eds.) *Comparing public & private schools. Volume 1: Institutions and organizations*. New York: The Falmer Press.
- Cooper, B. S., McLaughlin, D. H., & Manno, B. V. (1983). The latest word on private school growth. *Teachers College Record*, 85(1), 88-98.
- Costabile, R. V. (1986). Catholic families select a high school: An analysis of the decision-making process. (Doctoral dissertation, Fordham University.) *Dissertation Abstracts International*, 47, 2532A.
- Culver, S. M., Wolfle, L. M., & Cross, L. H. (1990). Testing a model of teacher satisfaction for blacks and whites. *American Educational Research Journal*, 27, 323-349.
- Cusick, P. (1983). *The egalitarian ideal and the American high school*. New York: Longman.
- Cusick, P. (1985). Finding meaning in teaching: Teachers' vision of their school. *Education and Urban Society*, 17, 355-364.
- Darling-Hammond, L., & Kirby, S. N. (1988). Public policy and private choice: The case of Minnesota. In James, T., & Levin, H. M. (Eds.) *Comparing public & private schools. Volume 1: Institutions and organizations*. New York: The Falmer Press.
- Davis, W. F. (1990). Standards for Catholic elementary schools: An analysis of self-study instruments and perceptions. (Doctoral dissertation, The Catholic University of America, 1990.)
- Dee, C. A. (1982). Student mobility from public to nonpublic schools: Parental attitudes and reasons. (Doctoral dissertation, University of Southern California, 1981.) *Dissertation Abstracts International*, 42, 924A.
- Denham, C. H., & Michael, J. J. (1981). Teacher sense of efficacy: A definition of the construct and a model for further research. *Educational Research Quarterly*, 6, 39-63.
- Dolan, J. P. (1985). *The American Catholic experience*. Garden City, NJ: Doubleday.
- Donohue, J. C. (1968). New priorities in Catholic education. *America* (April 13, 1968), 476-479.
- Donohue, J. W. (1973). *Catholicism and education*. New York: Harper and Row.
- Donovan, J. D., & Madaus, G. G. (1969). *Education in the Archdiocese of Boston: The voices of the people*. Chestnut Hill, MA: New England Catholic Education Center.
- Donovan, J. D., & Madaus, G. F. (1985). The problems of public schools: The Catholic connection. In Austin, G. R., & Garber, H. (Eds.) *Research on exemplary schools*. New York: Academic Press.
- Edmonds, R. (1979). Effective schools for the urban poor. *Educational Leadership* (October), 15-18.
- Elford, G. (1973). *The Catholic school in theory and practice*. NCEA Papers, Series II, No. 5. Washington, DC: National Catholic Educational Association.
- Elford, G. (1981). Self-selection: First a flaw, then a finding. *Momentum*, 12(3), 8-10.

- Elford, G., & Feistritzer, P. (1982). Report on the Contemporary Youth Concerns Survey. *Momentum*, 13(2), 4-7.
- Epstein, J. L. (1983). Longitudinal effects of person-family-school interactions on student outcomes. In Kerekhoff, A. (Ed.) *Research in sociology of education and socialization* (Vol 4). Greenwich, CT: JAI.
- Epstein, J. L. (1987). Toward a theory of family-school connections: Teacher practices and parent involvement across school years. In Hurrelmann, D., Kaufmann, F., & Losel, F. (Eds.) *Social intervention: Potential and constraints*. New York: de Gruyter Press.
- Erickson, D. A. (1967). Contradictory studies of parochial schooling: An essay review. *School Review*, 76, 425-436. Also in Kramer, W. A. (Ed.) *Eight critiques of the Johnstone study on the effectiveness of Lutheran schools*. St. Louis: Board of Parish Education, The Lutheran Church - Missouri Synod.
- Erickson, D. A. (1969). *Public control for nonpublic schools*. Chicago: University of Chicago Press.
- Erickson, D. A. (1981). The superior social climate of private schools. *Momentum*, 12(3), 5-8.
- Erickson, D. A. (1982). *The British Columbia story: Antecedents and consequents*. Los Angeles: Institute for the Study of Private Education.
- Erickson, D. A. (1984). State regulation of private schools. In Carper, J. C., & Hunt, T. C. (Eds.) *Religious schooling in America*. Birmingham, AL: Religious Education Press.
- Erickson, D. A. (1986). Choice and private schools: Dynamics of supply and demand. In Levy, D.C., (Ed.) *Private education: Studies in choice and public policy*. New York: Oxford University Press.
- Erickson, D. A., & Kamin, J. (1980). *How parents choose schools for their children*. Report to the National Institute of Education and the British Columbia Ministry of Education. University of San Francisco, Institute for Private Education.
- Erickson, D. A., & Nault, R. L. (1980). *Effects of public money on Catholic schools in Western Canada*. San Francisco, CA: Center for Research on Private Education.
- Erickson, D. A., Nault, R. L., & Cooper, B. S. (1978). Recent enrollment trends in U.S. non-public schools. In Abramowitz, S., & Rosenfeld, S. (Eds.) *Declining enrollment: The challenge of the coming decade*. Washington, DC: National Institute of Education.
- Fact Finders, Inc. (1988, February). *Catholic parents' elementary and secondary school selection: A study of dominant attitudes and needs which influence the school selection process*. St. Louis, MO: Archdiocese of St. Louis Catholic Education Office.
- Fay, L. F. (1975). Sociological evaluations of parochial schools: A comparative review. *Teachers College Record*, 76(3), 477-491.
- Feagin, J. M. (1971). Black Catholics in the United States: An exploratory study. *Sociological Analysis*, 32, 71-81.
- Fech, E. B. (1985, April). *Belief patterns of Catholic elementary school principals and teachers*. Paper presented to the annual meeting of the American Educational Research Association, Chicago. (ERIC Document Reproduction Service No. ED 262 481.)

- Fee, J. L., Greeley, A. M., McCready, W. C., & Sullivan, T. A. (1981). *Young Catholics: A report to the Knights of Columbus*. New York: Sadlier.
- Ferguson, M. (1983). Study supports case for Catholic schools. *Momentum*, 14(2), 12.
- Ferraro, J. M. (1989). A comparison of student, teacher and administrator perceptions about community in Catholic high schools. (Doctoral dissertation, The Catholic University of America, 1989.)
- Fichter, J. H. (1958). *Parochial school: A sociological study*. South Bend, IN: University of Notre Dame Press.
- Fichter, J. H. (1969). *Jesuit high schools revisited*. Washington, DC: Jesuit Educational Association.
- Firestone, W. A., & Rosenblum, S. (1988). Building commitment in urban high schools. *Educational Evaluation and Policy Analysis*, 10, 285-299.
- Flynn, M. (1985). *The effectiveness of Catholic schools*. Homebush, New South Wales: St. Paul Publications.
- Forliti, J. (1984). *Growing together: An opportunity for young adolescents and their parents. A report on Catholic youth in Grades 5 through 8, and their parents*. Washington, DC: National Catholic Educational Association.
- Franklin, V. P., & McDonald, E. B. (1988). Blacks in urban Catholic schools in the United States: A historical perspective. In Slaughter, D. T., & Johnson, D. J. (Eds.) *Visible now: Blacks in private schools*. Westport, CT: Greenwood Press.
- Frechtling, J., Edwards, S., & Richardson, W. (1980). *The declining enrollment problem: A study of why parents withdraw their children from the public schools*. Rockville, MD: Montgomery County Public Schools.
- Frechtling, J. A., & Frankel, S. M. (1982). *A survey of Montgomery County public schools: Who transferred children between public and private schools in 1980-81*. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.
- Gagne, R. M. (1977). *The conditions of learning*. (3rd ed.) New York: Holt, Rinehart and Winston.
- Gallup, A. M., & Elam, S. M. (1988). The 20th annual Gallup Poll of the public's attitudes toward the public schools. *Phi Delta Kappan*, 70(1), 33-46.
- Gleason, P. (1985). Baltimore III and education. *U.S. Catholic Historian*, 4, 273-306.
- Goldberger, A. S., & Cain, G. G. (1982). The causal analysis of cognitive outcomes in the Coleman, Hoffer and Kilgore report. *Sociology of Education*, 55, 103-122.
- Goodlad, J. L. (1984). *A place called school*. New York: McGraw-Hill.
- Gothard, B. W. (1983). A study to explore the differences in school-related values and perceptions between parents who send their children to Catholic secondary schools and parents who send their children to public secondary schools. (Doctoral dissertation, Michigan State University, 1982.) *Dissertation Abstracts International*, 43, 3766A.
- Grant, G. (1981). The character of education and the education of character. *Daedalus*, 110, 135-149.

- Grant, G. (1982). The elements of a strong positive ethos. *NAASP Bulletin*, 66(452) (March, 1982), 84-90.
- Grant, G. (1985). Schools that make an imprint: Creating a strong positive ethos. In Bunzel, J. H. (Ed.) *Challenge to American schools: The case for standards and values*. New York: Oxford University Press.
- Grant, G. (1988). *The world we created at Hamilton High*. Cambridge, MA: Harvard University Press.
- Gratiot, M. H. (1980a). Why parents choose nonpublic schools: Comparative attitudes and characteristics of public and private school consumers. (Doctoral dissertation, Stanford University, 1979.) *Dissertation Abstracts International*, 40, 4825A.
- Gratiot, M. H. (1980b). Research reveals why parents choose nonpublic schools. *Momentum*, 11(2), 18-19.
- Greeley, A. M. (1976). The ethnic miracle. *The Public Interest*, 45, 20-36.
- Greeley, A. M. (1977). *The American Catholic: A social portrait*. New York: Basic Books.
- Greeley, A. M. (1979). *Crisis in the church*. Chicago: The Thomas More Association.
- Greeley, A. M. (1981). *The religious imagination*. New York: Sadlier.
- Greeley, A. M. (1982). *Catholic high schools and minority students*. New Brunswick: Transaction Books.
- Greeley, A. M. (1985). The Catholic schools. In *American Catholics since the Council: An unauthorized report*. Chicago: Thomas More.
- Greeley, A. M. (1987). Community as social capital: James S. Coleman on Catholic schools. *America*, 159 (September 5, 1987), 110-112.
- Greeley, A. M. (1989). My research on Catholic schools. *Chicago Studies*, 28, 245-263.
- Greeley, A. M., & Rossi, P. B. (1966). *The education of Catholic Americans*. Chicago: Aldine Publishing Company.
- Greeley, A. M., McCready, W. C., & McCourt, K. (1976). *Catholic schools in a declining church*. Kansas City: Sheed and Ward.
- Gremillion, J., & Castelli, J. J. (1987). *The emerging parish: The Notre Dame study of Catholic life since Vatican II*. San Francisco: Harper & Row.
- Guerra, M. J., & Donahue, M. J. (1990). *Catholic high schools and their finances 1990*. Washington, DC: National Catholic Educational Association.
- Guerra, M. J., Donahue, M. J., & Benson, P. (1990). *The heart of the matter: Effects of Catholic High Schools on student values, beliefs and behaviors*. Washington, DC: National Catholic Educational Association.
- Haertel, E. H. (1987). Comparing public and private schools using longitudinal data from the HSB study. In Haertel, E. H., James, T., & Levin, H. M. (Eds.) *Comparing public & private schools. Volume 2: School achievement*. New York: The Falmer Press.

- Haertel, E. H., James, T., & Levin, H. M. (Eds.) (1987). *Comparing public & private schools. Volume 2: School achievement*. New York: The Falmer Press.
- Hafner, A., Ingels, S., Schneider, B., & Stevenson, D. (1990). *A profile of the American eighth grader: NELS:88 students' descriptive summary*. Washington, DC: National Center for Education Statistics.
- Hannaway, J., & Abramowitz, S. (1985). Public and private schools: Are they really different? In Austin, G. R., & Garber, H. (Eds.) *Research on exemplary schools*. New York: Academic Press.
- Hansen, D. A. (1986). Family-school articulation: The effects of interaction rule mismatch. *American Educational Research Journal*, 23, 643-659.
- Harris, A. T. (1982). A study of the relationship between stages of moral development and the religious factors of knowledge, belief and practice in Catholic high school adolescents. (Doctoral dissertation, University of Oregon, 1981.) *Dissertation Abstracts International*, 42, 638A.
- Harris, J. C. (1989). *Enrollment patterns in Catholic schools: The past and the future, 1979-1992*. Washington, DC: National Catholic Educational Association.
- Harris, Louis, and Associates (1984). *The Metropolitan Life Survey of the American teacher*. New York: Metropolitan Life Insurance Company.
- Harris, Louis, and Associates (1985). *The Metropolitan Life Survey of former teachers in America*. New York: Metropolitan Life Insurance Company.
- Harris, Louis, and Associates (1988). *The Metropolitan Life Survey of the American teacher 1988: Strengthening the relationship between teachers and students*. New York: Metropolitan Life Insurance Company.
- Hassenger, R. (1967). Essay review: American Catholics and their schools. *The School Review*, 75, 437-460.
- Havighurst, R. J. (1968). Social functions of Catholic education. In Sheridan, M. J., & Shaw, R. (Eds.) *Catholic education today and tomorrow*. Washington, DC: National Catholic Educational Association.
- Helm, C. M. (1990). Cultural and symbolic leadership in Catholic elementary schools: An ethnographic study. (Doctoral dissertation, The Catholic University of America, 1989.) *Dissertation Abstracts International*, 50, 1156A.
- Hermans, H. J. M. (1976). *Value areas and their development*. Amsterdam: Swets & Zeitbinger, B.V.
- Heyns, B., & Hilton, T. L. (1982). The cognitive tests for High School and Beyond: An assessment. *Sociology of Education*, 55, 89-102.
- Hickey, C. T. (1984). The impact of non-Catholic students in the Catholic schools of a large Eastern diocese. (Doctoral dissertation, Fordham University, 1983.) *Dissertation Abstracts International*, 44, 2105A.
- Hill, P. T., Foster, G. E., & Gendler, T. (1990). *High schools with character*. Santa Monica: The Rand Corporation.

- Hoffer, T., Greeley, A. M., & Coleman, J. S. (1985). Achievement growth in public and Catholic schools. *Sociology of Education*, 58, 74-97. Also in Haertel, E. H., James, T., & Levin, H. M. (Eds.) *Comparing public & private schools. Volume 2: School achievement*. New York: The Falmer Press.
- Hogan, P. (1984). The question of ethos in schools. *Furrow* (November, 1984), 693-703.
- Hunt, T. C. (1980). Catholic schools today: Redirection and redefinition? *The Living Light*, 17, 203-210.
- James, T., & Levin, H. M. (Eds.) (1983). *Public dollars for private schools: The case of tuition tax credits*. Philadelphia: Temple University Press.
- James, T., & Levin, H. M. (Eds.) (1988). *Comparing public & private schools. Volume 1: Institutions and organizations*. New York: The Falmer Press.
- Jensen, G. F. (1986). Explaining differences in academic behavior between public-school and Catholic-school students: A quantitative case study. *Sociology of Education*, 59, 32-41.
- John, R. L. (1986). Attitudes of priests, elementary school principals, and school parents toward lay administrators and lay teachers in Catholic elementary schools (Doctoral dissertation, University of San Francisco, 1984). *Dissertation Abstracts International*, 46, 1186A.
- Johnson, C. L. (1978). *Survey of lay Catholics, Archdiocese of Cleveland*. South Bend: University of Notre Dame.
- Johnson, H. C. (1987). Society, culture, and character development. In Ryan, K., & McLean, G. F. (Eds.) *Character development in schools and beyond*. New York: Praeger.
- Kahneman, D., & Tversky, A. (1972). Subjective probability: A judgment of representativeness. *Cognitive Psychology*, 3, 430-454.
- Kahneman, D., & Tversky, A. (1973). On the psychology of prediction. *Psychological Review*, 80, 237-251.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decisions under risk. *Econometrica*, 47, 263-291.
- Kamin, J., & Erickson, D. A. (1981, April). *Parental choice of schooling in British Columbia: Preliminary findings*. Paper presented to the annual meeting of the American Educational Research Association, Los Angeles.
- Kaufman, P. (1986). Trends in elementary and secondary public school enrollment. In Stern, J. D., & Williams, M. F. (Eds.) *The condition of education: 1986 edition*. Washington, DC: Center for Education Statistics.
- Kealey, R. J. (1975). Why do Catholic black and Hispanic women support Catholic schools? *Notre Dame Journal of Education*, 6(1), 32-35.
- Kealey, R. J. (1985). *Curriculum in the Catholic school*. (NCEA Keynote Series No. 9.) Washington, DC: National Catholic Educational Association.
- Kealey, R. J. (1986). The present task: Thinking and valuing skills. *Momentum*, 17(3), 14-16.

- Kealey, R. J. (1990). *United States Catholic elementary schools & their finances 1989*. Washington, DC: National Catholic Educational Association.
- Kearney, J. (1982). The urban Catholic school: A valuable part of American education. *NASSP Bulletin*, 66(452), 38-45.
- Keith, T. Z., & Page, E. B. (1985). Do Catholic schools improve minority student achievement? *American Educational Research Journal*, 22, 337-349.
- Kelly, F. D., Benson, P. L., & Donahue, M. J. (1986). *Toward effective parish religious education for children and young people*. Washington, DC: National Catholic Educational Association.
- Kleinfeld, J. S. (1979). *Eskimo school on the Andreafsky: A study of effective bicultural education*. New York: Praeger.
- Koob, C. A. (1966). *What is happening to Catholic education?* Washington, DC: National Catholic Educational Association.
- Kottkamp, R. B., Provenzo, E. F., & Cohn, M. M. (1986). Stability and change in a profession: Two decades of teacher attitudes. *Phi Delta Kappan*, 67, 559-567.
- Kraushaar, O. F. (1972). *American nonpublic schools: Patterns of diversity*. Baltimore: The Johns Hopkins University Press.
- Lazerson, M. (1977). Understanding American Catholic educational history. *History of Education Quarterly*, 17, 297-317.
- Lee, J. M. (1967). Catholic education in the United States. In Lee, J. M. (Ed.), *Catholic education in the western world*. Notre Dame, IN: University of Notre Dame Press.
- Lee, V. E. (1985). *1983-84 National Assessment of Educational Progress reading proficiency: Catholic school results and national averages*. Washington, DC: National Catholic Educational Association.
- Lee, V. E. (1987). *1983-84 National Assessment of Educational Progress writing proficiency: Catholic school results and national averages*. Washington, DC: National Catholic Educational Association.
- Lee, V. E., & Bryk, A. S. (1986). Effects of single-sex secondary schools on student achievement and attitudes. *Journal of Educational Psychology*, 78, 381-395.
- Lee, V. E., & Bryk, A. S. (1988). Curriculum tracking as mediating the social distribution of high school achievement. *Sociology of Education*, 61, 78-94.
- Lee, V. E., & Bryk, A. S. (1989). A multilevel model of the social distribution of high school achievement. *Sociology of Education*, 62, 172-192.
- Lee, V. E., Dedrick, R. F., & Smith, J. B. (1991). The effect of the social organization of schools on teachers' efficacy and satisfaction. *Sociology of Education*, 64, 190-208.
- Lee, V. E., & Marks, H. M. (1990). Sustained effects of the single-sex secondary school experience on attitudes, behaviors, and values in college. *Journal of Educational Psychology*, 82, 578-592.

- Lee, V. E., & Smith, J. B. (1990). Gender equity in teachers' salaries: A multilevel approach. *Educational Evaluation and Policy Analysis*, 12, 57-81.
- Lee, V. E., & Stewart, C. (1989). *National Assessment of Educational Progress proficiency in mathematics and science 1985-86: Catholic and public schools compared*. Washington, DC: National Catholic Educational Association.
- Leithwood, K. A., & Montgomery, D. J. (1982). The role of the elementary school principal in program improvement. *Review of Educational Research*, 52, 309-339.
- Lennon, R. (1948). A comparison of the educational achievement of public and parochial elementary pupils. *Catholic Educational Review*, 46, 647-652.
- Lenski, G. (1963). *The religious factor*. Garden City, NY: Doubleday.
- Lesko, N. L. (1983). The moral order of a parochial high school and the nature of student peer groups. (Doctoral dissertation, University of Wisconsin, 1983.)
- Lesko, N. L. (1988). *Symbolizing society*. Philadelphia: Falmer Press.
- Levine, D. U., Lachowicz, H., Oxman, K., & Tangeman, A. (1972). The home environment of students in a high-achieving inner-city parochial school and a nearby public school. *Sociology of Education*, 45, 435-444.
- Light, D. W. (1966). Social participation in public and Catholic schools. *Review of Religious Research*, 8, 3-11.
- Lightfoot, S. L. (1978). *Worlds apart: Relationships between families and schools*. New York: Basic Books.
- Lightfoot, S. L. (1983). *The good high school: Portraits of character and culture*. New York: Basic Books.
- Lipsitz, J. (1984). *Successful schools for young adolescents*. New Brunswick, NJ: Transaction Books.
- Little, J. W. (1982). Norms of collegiality and experimentation: Workplace conditions of school success. *American Educational Research Journal*, 19, 325-340.
- Lortie, D. C. (1975). *Schoolteacher: A sociological study*. Chicago: University of Chicago Press.
- Lortie, D. C. (1986). Teacher status in Dade County: A case of structural strain. *Phi Delta Kappan*, 67, 568-575.
- Madaus, G. F., & Linnan, R. (1973). The outcome of Catholic education? *School Review*, 8, 207-232.
- Madaus, G. F., Airasian, P. W., & Kellaghan, T. (1980). *School effectiveness: A reassessment of the evidence*. New York: McGraw-Hill.
- Maddaus, J. (1990). Parental choice of school: What parents think and do. In Cazden, C. B. (Ed.) *Review of research in education, Volume 16*. Washington, DC: American Educational Research Association.
- Malone, R. J. (1981). The Roman Catholic secondary school as faith community: Educational, developmental, and theological considerations. (Doctoral dissertation, Boston University 1981.)

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- Manno, B. V. (1981). Young Catholics: Continuities and changes. An interview with William McCready. *Momentum*, 12(3), 18-20.
- Manno, B. V. (1987). The need to share the lessons of social capital. *Momentum*, 18(4), 2, 9-10.
- Marks, H. M., & Lee, V. E. (1989). *National Assessment of Educational Progress proficiency in reading 1985-86: Catholic and public schools compared*. Washington, DC: National Catholic Educational Association.
- Marmion, J. P. (1977). Catholic education: The changing scene in America. (Review of *The education of Catholic Americans* and *Catholic schools in a declining church*.) *Clergy Review*, 62 (July, 1977), 285-288.
- Marsh, H. W., & Grayson, D. (1990). Public/Catholic differences in the High School and Beyond data: A multigroup structural equation modeling approach to testing mean differences. *Journal of Educational Statistics*, 15, 199-235.
- Martin, B. (1975). Parent-child relations. In Horowitz, J. D. (Ed.) *Review of child development research*. (Vol. 4) New York: Sage.
- Maslow, A. H. (1970). *Motivation and personality* (2nd ed.). New York: Harper & Row.
- McArdle, F. J. (1985). An investigation into male students' perceptions of sense of community and discipline in nine Christian Brothers' high schools. (Doctoral dissertation, The Catholic University of America, 1985.)
- McCluskey, N. G. (1964). *Catholic education in America: A documentary history*. Richmond, VA: William Byrd.
- McCluskey, N. G. (1968). *Catholic education faces its future*. Garden City, NY: Doubleday & Company.
- McCormick, P. A. (1987). A comparison of the school's Catholic identity, the principal's instructional leadership, and the overall school effectiveness in Catholic elementary schools administered by lay principals. (Doctoral dissertation, University of Cincinnati, 1985.) *Dissertation Abstracts International*, 47, 369A.
- McCready, W. C., & Greeley, A. M. (1976). *The ultimate values of the American population*. Beverly Hills: Sage.
- McDermott, E. J. (1985). *Distinctive qualities of the Catholic school*. (NCEA Keynote Series No. 1.) Washington, DC: National Catholic Educational Association.
- McLean, G. F., Ellrod, F. E., & Schindler, D. (1986). *Act and agent: Philosophical foundations of moral education and character development*. Washington, DC: University Press of America.
- McLean, G. F., & Knowles, R. (1986). *Psychological foundations of moral education and character development*. Washington, DC: University Press of America.
- McMillen, M. M. (1988). *Secondary school teachers' opinions: Public and private schools*. (CS 88-102.) Washington, DC: National Center for Education Statistics.
- McMillen, M. M. (1990, April). *Characteristics of public and private school teachers*. Paper presented to the annual meeting of the American Educational Research Association, Boston.

- McMillen, M. M., & Gerald, E. (1990). *Characteristics of private schools: 1987-88*. (NCES 90-080.) Washington, DC: National Center for Education Statistics.
- McPartland, J. M., & McDill, E. L. (1982). Control and differentiation in the structure of American education. *Sociology of Education*, 55, 77-88.
- McPerson, A., & Willms, J. D. (1986). Certification, class conflict, religion, and community: A socio-historical explanation of the effectiveness of contemporary schools. *Research in the Sociology of Education and Socialization*, 6, 227-302.
- Meitler, N. (1989). *Commitment to growth: Secondary education study, Archdiocese of Baltimore*. Hales Corners, WI: Neal Meitler Consultants, Inc.
- Metz, M. H. (1986). *Different by design: The context and character of three magnet schools*. New York: Routledge & Kegan Paul.
- Michaletz, J. (1979). Principal leadership in the Catholic school. *The Living Light*, 16, 236-243.
- Miller, W. C. (1981). Staff morale, school climate, and educational productivity. *Educational Leadership*, 38(6), 483-486.
- Moran, M. J. (1983). *Diocese of Arlington Survey*. Arlington, VA: The Martin J. Moran Company.
- Morgan, W. R. (1983). Learning and student life quality of public and private school youth. *Sociology of Education*, 56, 187-202.
- Morrison, J. L., & Hodgkins, B. J. (1971). The effectiveness of Catholic education: A comparative analysis. *Sociology of Education*, 44, 119-131.
- Morrison, J. L., & Hodgkins, B. J. (1978). Social change and Catholic education. *Education*, 98, 264-279.
- Morton, D. S. (1979). Examining the differences between public and parochial education: The Rhode Island experience. In Vitullo-Martin, T. *Catholic inner-city schools: The future*. Washington, DC: United States Catholic Conference.
- Muccigrosso, R. (1986). The identity of the Catholic schools—snares and strategies. *Momentum*, 17(4), 57-58.
- Murnane, R. J. (1981). Evidence, analysis, and unanswered questions. *Harvard Educational Review*, 51, 483-489.
- Murnane, R. J. (1984). A review essay — Comparisons of public and private schools: Lessons from the uproar. *The Journal of Human Resources*, 19(2), 263-277.
- Murnane, R. J. (1986). Family choice in public education: The roles of students, teachers, and system designers. *Teachers College Record*, 88, 169-189.
- Mutschler, M. J. (1987). Effective Catholic schooling: An organizational analysis. (Doctoral dissertation, Fordham University, 1985.) *Dissertation Abstracts International*, 47, 42A.
- Myers, J. F. (1974). Catholic Schools (Administration). *The New Catholic Encyclopedia*, XVI, Supplement 1967-1974. Washington, DC: Publishers Guild, Inc.

- Nathan, J. (1989). *Progress, problems, and prospects of state educational choice plans*. Washington, DC: U. S. Department of Education, Office of Planning, Budget and Evaluation.
- National Commission on Excellence in Education (1983). *A nation at risk: The imperative for educational reform*. Washington, DC: United States Government Printing Office.
- National Conference of Catholic Bishops (1972). *To teach as Jesus did*. Washington, DC: United States Catholic Conference.
- National Conference of Catholic Bishops (1979). *Sharing the light of faith: National Catechetical Directory for Catholics of the United States*. Washington, DC: United States Catholic Conference.
- Nelson, K. O. (1989). Reasons given by Anglo/Hispanic parents/guardians for choosing a Catholic high school in the Southwestern United States. (Doctoral dissertation, The University of Arizona, 1988.) *Dissertation Abstracts International*, 49, 1049A.
- Neuwien, R. (Ed.) (1966). *Catholic schools in action*. Notre Dame: The University of Notre Dame Press.
- Newmann, F. M., Rutter, R. A., & Smith, M. S. (1989). Organizational factors that affect school sense of efficacy, community, and expectations. *Sociology of Education*, 62, 221-238.
- Noell, J. (1982). Public and Catholic schools: A reanalysis of 'Public and Private Schools'. *Sociology of Education*, 55, 123-132.
- Noell, J. (1983). A response to Coleman, Hoffer and Kilgore. *Sociology of Education*, 56, 203.
- Oakley, H. T. (1986). Parental choice of elementary schooling alternatives in an affluent suburban community. (Doctoral dissertation, The Ohio State University, 1985.) *Dissertation Abstracts International*, 46, 3596A.
- O'Brien, J. S. (1987). *Mixed messages: What bishops and priests say about Catholic schools*. Washington, DC: National Catholic Educational Association.
- Ogle, L. T. (Ed.) (1990). *The condition of education 1990. Volume 1*. Washington, DC: Office of Educational Research and Improvement.
- Ogle, L. T., Alsalam, N., & Rogers, G. T. (1991). *The condition of education 1991*. Washington, DC: Office of Educational Research and Improvement.
- O'Neill, M. (1977). Ideas and issues: Earthy parent power. *Momentum*, 8(4), 55-56.
- Ornstein, A. C. (1989). Private and public school comparisons: Size, organization, and effectiveness. *Education and Urban Society*, 21, 192-206.
- Pallas, A. M. (1988). School climate in American high schools. *Teachers College Record*, 89, 541-554.
- Pedhazur, E. J. (1982). *Multiple regression in behavioral research*. (2nd ed.) New York: Holt, Rinehart, & Winston.
- Pejza, J. P. (1988). An investigation of strong religious cultures in selected Catholic secondary schools. (Doctoral dissertation, University of San Diego, 1987.) *Dissertation Abstracts International*, 48, 891A.

- Phi Delta Kappa (1980). *Why do some urban schools succeed? The Phi Delta Kappa study of exceptional urban elementary schools*. Bloomington, IN: Phi Delta Kappa.
- Powell, A. G., Farrar, E., & Cohen, D. K. (1985). *The shopping mall high school: Winners and losers in the educational marketplace*. New York: Houghton Mifflin.
- Purkey, S. C., & Smith, M. S. (1983). Effective schools: A review. *Elementary School Journal*, 84, 427-452.
- Purkey, S. C., & Smith, M. A. (1985). Educational policy and school effectiveness. In Austin, G. R., & Garber, H. (Eds.) *Research on exemplary schools*. New York: Academic Press.
- Radecki, D. J. (1988). The identification and analysis of factors contributing to lay teacher attrition and retention in Catholic high schools. (Doctoral dissertation, University of San Francisco, 1987.) *Dissertation Abstracts International*, 48, 1725A.
- Raudenbush, S., & Bryk, A. S. (1986). A hierarchical model for studying school effects. *Sociology of Education*, 59, 1-17.
- Reck, C. (1988). *The small Catholic elementary school: Advantages and opportunities*. Washington, DC: National Catholic Educational Association.
- Rhodes, A. L., & Nam, C. B. (1970). The religious context of educational expectations. *American Sociological Review*, 35, 253-266.
- Ridder, N. F. (1986). The religious beliefs and practices of Catholic graduates of Catholic and public high schools in the State of Nebraska from 1972-1981. (Doctoral dissertation, University of Nebraska, 1985.) *Dissertation Abstracts International*, 46, 2910A.
- Riordan, C. (1985). Public and Catholic schooling: The effects of gender context policy. *American Journal of Education*, 93, 518-540.
- Riordan, C. (1990). *Girls and boys in school: Together or separate?* New York: Teachers College Press.
- Rock, D. A., Ekstrom, R. B., Goertz, M. E., & Pollack, J. (1986). *Study of excellence in high school education: Longitudinal study, 1980-82 final report*. Washington, DC: U.S. Department of Education, Center for Education Statistics.
- Rock, D. A., & Pollack, J. M. (1990, April). *Test achievement of NELS:88 eighth-grade students*. Paper presented to the annual meeting of the American Educational Research Association, Boston.
- Rohner, R. P. (1975). *They love me, they love me not: A study of the worldwide effects of parental acceptance and rejection*. New Haven, CT: HRAF Press.
- Rosenholtz, S. J. (1985). Effective schools: Interpreting the evidence. *American Journal of Education*, 93, 352-387.
- Rosenholtz, S. J. (1989). *Teachers' workplace: The social organization of schools*. New York: Longman.
- Rossi, P. H., & Rossi, A. S. (1961). Some effects of parochial school education in America. *Daedalus*, 90(2), 300-328.

- Rossi, P. H., & Wright, J. D. (1982). Best schools—better discipline or better students? A review of high school achievement. *American Journal of Education*, 91, 79-89.
- Rutter, M., Maughan, B., Mortimore, P., Ouston, J., & Smith, A. (1979). *Fifteen thousand hours: Secondary schools and their effects on children*. Cambridge, MA: Harvard University Press.
- Ryan, M. P. (1964). *Are parochial schools the answer?* New York: Holt, Rinehart and Winston.
- Sacred Congregation for Catholic Education (1977). *The Catholic school*. Washington, DC: United States Catholic Conference.
- Sacred Congregation for Catholic Education (1982). *Lay Catholics in Schools: Witnesses to faith*. In *The Pope Speaks*, 28, 45-73.
- Sacred Congregation for Catholic Education (1988). *The religious dimension of education in a Catholic school*. *Origins*, 18(14), 213, 215-228.
- Salganik, L. H., & Karweit, N. (1982). Voluntarism and governance in education. *Sociology of Education*, 55, 152-161.
- Sanders, J. W. (1977). *The education of an urban minority: Catholics in Chicago, 1833-1965*. New York: Oxford University Press.
- Sassenrath, J., Croce, M., & Penaloza, M. (1984). Private and public school students: Longitudinal achievement differences? *American Educational Research Journal*, 21, 557-563.
- Schaefer, J. C. (1984). *Preliminary report for consultation on Catholic school financing*. Baltimore, MD: Archdiocese of Baltimore.
- Schipper, C. A. (1982). A study of the perceptions of Catholic schools by diocesan priests of the Archdiocese of San Francisco. (Doctoral Dissertation, University of San Francisco, 1982.)
- Schneider, B. L. (1989). Schooling for poor and minority children: An equity perspective. In Boyd, W. L., & Cibulka, J. G. (Eds.) *Private schools and public policy: International perspectives*. Philadelphia, PA: The Falmer Press.
- Schneider, B. L., & Slaughter, D. T. (1988). Educational choice for blacks in urban private elementary schools. In James, T., & Levin, H. M. (Eds.) *Comparing public & private schools. Volume 1: Institutions and organizations*. New York: The Falmer Press.
- Schneider, F. W., & Coutts, L. M. (1982). The high school environment: A comparison of coeducational and single-sex schools. *Journal of Educational Psychology*, 74, 898-906.
- Sewell, W. H., Hauser, R. M., & Featherman, D. L. (Eds.) (1976). *Schooling and achievement in American society*. New York: Academic Press.
- Shanahan, T., & Walberg, H. J. (1985). Productive influences on high school student achievement. *Journal of Educational Research*, 78, 15-21.
- Shaw, R., & Hurley, R. J. (Ed.) (1969). *Trends and issues in Catholic education*. New York: Citation Press.
- Sheehy, S. O. (1987). The perceptions of pastors, Catholic elementary school principals, and teachers regarding the Catholic elementary school teacher as church minister. (Doctoral dissertation, University of San Francisco, 1986.) *Dissertation Abstracts International*, 47, 3385A.

- Shuda, R. (1976). The impact of Catholic schools on adult religious behavior — and related matters. *Momentum*, 7(3), 39-42.
- Shuster, G. N. (1967). *Catholic education in a changing world*. New York: Holt, Rinehart, and Winston.
- Sizer, T. (1984). *Horace's compromise: The dilemma of the American high school*. Boston: Houghton Mifflin.
- Slaughter, D. T., & Johnson, D. J. (Eds.) (1988). *Visible now: Blacks in private schools*. Westport, CT: Greenwood Press.
- Slaughter, D. T., & Schneider, B. L. (1986). *Newcomers: Blacks in Private Schools*. (Contract No. NIE-G-82-0040.) Final Report to the National Institute of Education. (ERIC Document Reproduction Service No. ED 274 768 and ED 274 769.)
- Slaughter, D. T., & Schneider, B. L. (forthcoming). Parents and school life: Varieties of parent participation. In Bauch, P. (Ed.) *Private schools and the public interest: Research issues and policy*. Westport, CT: Greenwood Press.
- Snyder, T. D. (Ed.) (1989). *Digest of educational statistics 1989*. (25th edition.) Washington, DC: National Center for Education Statistics.
- Strommen, M. P. (1967). Review of *The Education of Catholic Americans* and *Catholic Schools in Action*. *Religious Education*, 62 (Jan-Feb), 60-62.
- Sullivan, E. P. (1982). A study of the perceptions of Catholic schools by diocesan priests of the Archdiocese of Boston. (Doctoral dissertation, Boston College, 1981.) *Dissertation Abstracts International*, 42, 3834A.
- Sweet, D. (1981). School effectiveness and parental choice of public and private schools. *Momentum*, 12(3), 11-13.
- Tacheny, T. S. (1988). A study of the perceptions of Catholic schools by diocesan priests of the Winona and New Ulm Dioceses of Minnesota. (Doctoral dissertation, Saint Louis University, 1987.) *Dissertation Abstracts International*, 48, 802A.
- Tactical Decisions Group (1989, July). *Qualitative evaluation of opportunities for growth in Catholic education in the Diocese of Cleveland*. Cleveland, OH: Tactical Decisions Group.
- Tarr, H. C. (1990a). *Teacher values and commitment orientations*. (A report to the Archdiocese of Boston Strategic Planning Study for Schools, October 29, 1990.) Washington, DC: The Catholic University of America.
- Tarr, H. C. (1990b). *Teacher satisfaction, attitudes and attributions*. (A report for the Archdiocese of Boston Strategic Planning Study for Schools, December 21, 1990.) Washington, DC: The Catholic University of America.
- Taylor, S. E. (1982). The availability bias in social perception and interaction. In Kahneman, D., Slovic, P., & Tversky, A. (Eds.) *Judgment under uncertainty: Heuristics and biases*. New York: Cambridge University Press.
- Thompson, A. D. (1982). *That they may know you...* Washington, DC: National Catholic Educational Association.

- Thompson, A. D. (1988). Review of *Mixed messages: What bishops and priests say about Catholic schools*. *The Living Light*, 24, 79-84.
- Thompson, A. D., & Hemrick, E. (1982). *The last fifteen years: A statistical survey of Catholic elementary and secondary formal religious education 1965-1980*. Washington, DC: United States Catholic Conference.
- Tonnies, F. (1965). *Community and society*. (Translated by Charles P. Loomis.) New York: Harper & Row.
- Tversky, A., & Kahneman, D. (1973). Availability: A heuristic for judging frequency and probability. *Cognitive Psychology*, 5, 207-232.
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185, 1124-1131.
- Vitullo-Martin, T. (1979). *Catholic inner-city schools: The future*. Washington, DC: United States Catholic Conference.
- Vitullo-Martin, T., & Vitullo-Martin, J. (1973). *The politics of alternative models to the public schools*. (Report No. OEC-9-720013.) Washington, DC: U. S. Office of Education.
- Walberg, H. J. (1984). Improving the productivity of America's schools. *Educational Leadership*, 41(8), 19-27.
- Walberg, H. J., & Shanahan, T. (1983). High school effects on individual students. *Educational Researcher*, 12, 4-9.
- Walsh, J. J., Airasian, P. W., Cahill, R. J., Jensen, J. A., & Rakow, E. A. (1969). *Archdiocese of Boston education study: Assessment of academic and religious outcomes*. Chestnut Hill, MA: New England Catholic Education Center.
- Warkov, S., & Greeley, A. M. (1966). Parochial school origins and educational achievement. *American Sociological Review*, 31, 406-414.
- Weber, M. (1947). *Theory of social and economic organization*. New York: Macmillan.
- Welch, M. L. (1988). An analysis of desired student outcomes of Catholic elementary schools as perceived by parents, teachers, and board members. (Doctoral dissertation, Loyola University of Chicago, 1988.) *Dissertation Abstracts International*, 48, 3049A.
- Williams, M. F. (1986). Private school enrollment and tuition trends. In Stern, J. D., & Williams, M. F. (Eds.) *The condition of education: 1986 edition*. Washington, DC: Center for Education Statistics.
- Williams, M. F., Hancher, K. S., & Hutner, A. (1983). *Parents and school choice: A household survey*. Washington, DC: U.S. Department of Education. (ERIC Document Reproduction Service No. EA 016 528.)
- Willms, J. D. (1984). School effectiveness within the public and private sectors: An evaluation. *Evaluation Review*, 8, 113-135.

- Willms, J. D. (1985). Catholic-school effects on academic achievement: New evidence from the High School and Beyond Follow-up Study. *Sociology of Education*, 58, 98-114.
- Willms, J. D. (1987). Patterns of academic achievement in public and private schools: Implications for public policy and future research. In Haertel, E. H., James, T., & Levin, H. M. (Eds.) *Comparing public & private schools. Volume 2: School achievement*. New York: The Falmer Press.
- Wise, A. E., & Darling-Hammond, L. (1983). Educational vouchers: Regulating their efficiency and effectiveness. *Educational Researcher*, 12(9), 9-12, 17-18.
- Wojcicki, T., & Convey, K. (1982). *Teachers, Catholic schools, and faith community: A program for spirituality*. Washington, DC: Jesuit Educational Center for Human Development.
- Wynne, E. A. (1980). *Looking at schools: Good, bad, and indifferent*. Lexington, MA: D. C. Heath.
- Yeager, R. J., Benson, P. L., Guerra, M. J., & Manno, B. V. (1985). *The Catholic high school: A national portrait*. Washington, DC: National Catholic Educational Association.
- Zastrow, E. (1988). *Enrollment options parent survey*. St. Paul, MN: Minnesota Department of Education.



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